

ARES J. ROSAKIS NAE, NAS

Theodore von Kármán Professor of Aeronautics and Mechanical Engineering

California Institute of Technology

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EAS & Personal Websites: <http://eas.caltech.edu/> - <http://rosakis.caltech.edu/>

EDUCATION:

1983	<i>Major Field:</i> Solid Mechanics <i>Minor Fields:</i> Material Science and Applied Mathematics	Ph.D.	Brown University
Thesis Title:	<i>Experimental Determination of the Fracture Initiation and Dynamic Crack Propagation Resistance of Structural Steels by the Optical Method of Caustics</i>	<i>(Thesis Advisors: L. B. Freund, J. Duffy)</i>	
1980	Solid Mechanics and Structures	Sc.M.	Brown University
1978,1986	Engineering Science	B.A. (Hon), M.A.	Oxford University
1975	High School Diploma		Athens College

PROFESSIONAL EXPERIENCE:

2018- 2023	Nanyang Visiting Professorship	Nanyang Technological University (NTU) Singapore
2018	Distinguished Simpson Visiting Professorship	Northwestern University
Spring 2013-2015	Otis Booth Leadership Chair, Division of Engineering and Applied Science Theodore von Kármán Professor of Aeronautics and Mechanical Engineering	California Institute of Technology
Spring 2009-2015	Chair, Division of Engineering and Applied Science	California Institute of Technology
Summer 2008	Visiting Professor	Columbia University
Spring 2008	Astor Visiting Professor	Oxford University
Summer 2005	Visiting Professor, Department of Terre-Atmosphère-Océan	École Normale Supérieure, Paris
2004-Present	Theodore von Kármán Professor of Aeronautics and Mechanical Engineering	California Institute of Technology
2004 - 2009	Director of the Graduate Aeronautical Laboratories (GALCIT)	California Institute of Technology
2003-2004	Interim Co-Director, Graduate Aeronautical Laboratories (GALCIT)	California Institute of Technology
2000	Professor of Aeronautics & Mechanical Engineering	California Institute of Technology
1993-2000	Professor of Aeronautics & Applied Mechanics	California Institute of Technology
1988-1993	Associate Professor of Aeronautics & Applied Mechanics	California Institute of Technology
1982-1988	Assistant Professor of Aeronautics and Applied Mechanics	California Institute of Technology
1980-1982	General Electric Foundation Fellow and University Scholar	Brown University
1978-1980	Graduate Research and Teaching Assistant	Brown University

HONORS AND AWARDS:

2023	Awarded Honorary PhD – National Technical University of Athens	NTUA
2023	Awarded Honorary Degree of Doctor of Engineering	University of Illinois UC
2021	Zdeněk P. Bažant Medal for Failure and Damage Prevention (2020)	ASCE
2021	Horace Mann Medal – Brown University (alumni award)	Brown University
2019	Aurel Stodola Medal and Lecture – 160 th Anniversary of Stodola’s birth	ETH Zurich
2018	Timoshenko Medal, American Society of Mechanical Engineers	ASME
2017	Elected Fellow, American Association for the Advancement of Science	AAAS
2017	Elected Fellow, American Geophysical Union	AGU
2017	Elected Honorary Fellow, International Congress of Fracture	ICF
2016	Elected to the National Academy of Sciences	NAS
2016	Theodore von Karman Medal , American Society of Civil Engineers	ASCE
2015	Sia Nemat-Nasser Medal, Society of Experimental Mechanics	SEM
2014	Elected member of the Academia Europaea (Academy of Europe)	Academia Europaea, London
2013	Elected Corresponding member of the Academy of Athens	National Academy of Greece
2013	Elected Foreign Fellow of the Indian National Academy of Engineering	INAE
2013	Elected member of the European Academy of Sciences and Arts (Academia Scientiarum et Artium Europaea)	EASA
2013	P.S. Theocaris Award, Society of Experimental Mechanics	SEM
2012	Commandeur dans l'Ordre des Palmes Académiques	Prime Minister of the French Republic
2011	Elected Member of the National Academy of Engineering	NAE
2010	A.C. Eringen Medal, Society of Engineering Science	SES
2010	Robert Henry Thurston Lecture Award	ASME
2010	Brown Engineering Alumni Medal (BEAM)	Brown University
2009	Elected Fellow of the American Academy of Arts and Sciences	AAA&S
2009	Elected Fellow of the Society of Experimental Mechanics	SEM
2008	Hetényi Award, Society of Experimental Mechanics	SEM
2007	Harting Award, Society of Experimental Mechanics	SEM
2005	Murray Medal & Lecture, highest recognition of the society and prestige lecture	Society for Experimental Mechanics
2003	Frocht Award – Experimental Mechanics Educator of the Year	Society of Experimental Mechanics,

1998	Excellence in Teaching Award	Caltech Graduate Student Council
1996	B.L. Lazan Award, Recognition of outstanding original technical contributions in the field of dynamic fracture, Society of Experimental Mechanics	SEM
1995	Elected Fellow of the American Society of Mechanical Engineers	ASME
1993	Hetényi Award, Society of Experimental Mechanics	SEM
1989	Rudolf Kingslake Medal and Prize, International Society of Optical Engineering	SPIE
1985	U.S. Presidential Young Investigator Award, National Science Foundation	NSF, Whitehouse
1984 & 1985	IBM Faculty Development Award	IBM, Caltech
1980-82	Fellowship & Univ. Scholarship, General Electric Foundation, Div. of Engrg.	Brown University
1975	Physics Prize	Athens College

ACADEMY MEMBERSHIPS AND PROFESSIONAL SOCIETIES - Past & Present: **Status**

Academies:

National Academy of Sciences	NAS	Member	2016
National Academy of Engineering	NAE	Member	2011
American Academy of Arts and Sciences	AAA&S	Fellow	2009
Academia Europaea	AE	Member	2014
Academy of Athens	AA	Cor. Member	2013
European Academy of Sciences and Arts	EASA	Member	2013
Indian National Academy of Engineering	INAE	Foreign Fellow	2013
European Academy of Sciences	EASc	Member	2020
New York Academy of Science	NYAS	Member	1999

Associations and Societies:

American Association for the Advancement of Science	AAAS	Fellow	2017
International Congress on Fracture	ICF	Honorary Fellow	2017
American Geophysical Union	AGU	Elected Fellow	2017
American Society of Civil Engineers	ASCE	Member	2014
Seismological Society of America	SSA	Active Member	2009
Society of Experimental Mechanics	SEM	Fellow	2009
Aerospace Historical Society	AHS	Member	2007
Aerospace Historical Society	AHS	Chair	2006-09
Aerospace Historical Society	AHS	Chair	2017-2019
American Association for the Advancement of Science	AAAS	Professional Mem	2006
American Geophysical Union	AGU	Active Member	2004
American Society of Mechanical Engineers	ASME	Fellow	1985
Hellenic Society for Theoretical & Applied Mechanics	Greek chapter of IUTAM	Member	1984
British Society for Strain Measurement	BSSM)	Member	1978
Eubean Studies Society, Athens, Greece	a historical society	Member	1975
Robert Boyle Society, Oxford, U.K.	a scientific society	Member	1975
Society of Engineering Science	SES	Member	1975
American Academy of Mechanics	AAM	Member	

LEADERSHIP ACCOMPLISHMENTS:

May 2009 -2015 As Engineering and Applied Science Division Chair

- 3 years in a row *Engineering and Technology* at Caltech was ranked #1 by the Times Higher Education World University Ranking (Thomson Reuters) for 2010-2011, 2011-2012, and 2012-2013. Also in the 2016-2017 academic year.
- Presided over the structural re-organization of the Division of Engineering and Applied Science (EAS) at Caltech.
- Replaced the amorphous “degree option” structure with seven EAS departments and presided over their administrative restructuring.
- Introduced a system of multiple fundraising advisory councils, composed of Caltech alumni and Institute trustees, corresponding to each new department.
- Established the Center for Technology and Management Education (CTME) which provides executive training, courses and certificate programs to international companies and government agencies.
- Involved in the establishment and oversight of the Resnick Energy Sustainability Institute which aims to foster transformational advances in energy science and technology through research, education, and communication.
- Member of the Board of Directors for the Joint Center for Artificial Photosynthesis (JCAP) one of the nation’s DOE hubs with the mission to keep the United States at the forefront of solar-fuel research.
- Oversaw the fundraising and renovation of the Jorgensen Laboratory to serve as the new home for two of Caltech’s key energy and sustainability research efforts: the Resnick Institute and the Joint Center for Artificial Photosynthesis.

- Presided over, along with the Chair of the Division of Geology and Planetary Sciences, the establishment of the interdisciplinary Terrestrial Hazard Observation and Reporting (THOR) Center.
- Incorporated the Caltech “Center for Advanced Computing Research” (CACR) into the EAS Division.
- Established a graduate student exchange program between the Caltech’s Division of Engineering and Applied Science and Institut Supérieur de l’Aéronautique et de l’Espace, located in Toulouse, France.
- Appointed by the President of Ecuador as a founding member and Chair of the Board of Trustees (*Comisión Gestora*) of Yachay Universidad de Investigación de Tecnología Experimental (Yachay-Tech) the first International, research-centric university in Latin America.
- Created a partnership program with the Indian Space Research Organization (ISRO) and established the “Satish Dhawan” endowed Fellowship sponsored by ISRO and the Government of India. Also created the “Abdul Kalam” prize in Aerospace.
- Established the Charles M. Vest Engineering Grand Challenges Scholarship at Caltech for International collaboration (endorsed by NAE and RAE).
- Founded the new Department of “Medical Engineering” (MedE) within the EAS Division.
- Facilitated the establishment of the Caltech-Northrop Grumman Space Solar Power Initiative (SSPI).
- Established the Foster and Coco Stanback Space Innovation Fund and Graduate Fellowships supporting space-related research.
- Spearheaded the establishment of the Foster and Coco Stanback Center of Autonomous Systems and Technology (CAST).

2004-2009 As Director of GALCIT

- Led the initiative to revitalize the Graduate Aerospace Laboratories (GALCIT). Caltech was ranked #1 or #2 in Aerospace Engineering for the last six years by the US News and World Report.
- Five new faculty members hired between 2005 and 2007 increased the size of GALCIT faculty by 40%.
- Established Master’s Program in Space Engineering, in collaboration with the Jet Propulsion Laboratory (JPL); initiated follow-on PhD program in Space Engineering; guaranteed the long-term viability of these programs through new fundraising for lectureships and fellowships.
- Established a two year dual masters' program between GALCIT and École Polytechnique in France. The program received the 2010 Andrew Heiskell Award for Innovation in International Education from the Institute of International Education in New York.
- Established a Master’s of PhD exchange program with the Government of Andalucía and the University of Seville.
- Oversaw extensive fundraising and renovation of the historic Guggenheim Laboratory following removal of 10-foot wind tunnel. Four labs built, the Laboratory for Large Space Structures, the Allen Puckett Laboratory of Computational Fluid Mechanics, the Gordon Cann Laboratory of Experimental Innovation, and the Joseph Charyk Center for Bio-Inspired Design; Kármán Conference room renovated and GALCIT Archives created (made possible by Robert Herzog); and extensive new classroom, conference, office, and social spaces created.
- Established the GALCIT Director’s Advisory Board to extend the fundraising reach of GALCIT.
- Contributed to the establishment of the Keck Institute for Space Studies (KISS) at Caltech and JPL.
- Led systematic effort to formally involve GALCIT and EAS faculty in joint research projects with JPL, the newly established Keck Institute for Space Studies, and the aerospace industry.
- Co-organized (with JPL and Northrop Grumman) an international conference to celebrate the 50th Anniversary of Space Exploration. (800 attendees).
- Incorporated the Aerospace Historical Society (AHS) into GALCIT and became its president. Among other outreach activities the Society is annually responsible for awarding the *International von Kármán Wings Award*.

Caltech Leadership and Service

- Institute Cabinet for the Caltech Strategic Identity Project (The Caltech branding project)
- Member, Institute Academic Council (IACC)
- Member, Institute Administrative Council (IAC)
- Member, Steering Committee, Keck Institute for Space Studies (KISS)
- Chair, Lee-Ramo Symposia Committee, EAS Division
- Member, Committee for the Constitution of Caltech’s “Institute for Space Science”
- Member, JPL Advisory Council
- Member, JPL Chief Technologist Selection Committee
- Member, Institute’s Faculty Board (Caltech’s governing body)
- Faculty Nominating Committee, Faculty Board
- Chair, GALCIT/JPL Committee for Space Engineering Education
- Member, EAS Division Steering Committee (DSC)
- Member, Planning Committee for the Future of the Engineering & Applied Sciences Division
- Participated and chaired over thirty departmental committees for faculty hiring, promotions, graduate student awards, laboratory staffing and renovation

HONOR LECTURES:			
2024	Inaugural Distinguished Lyle Lecture	Southern Methodist Univ, School of Engrg.	Dallas, TX
2023	Honorary Doctorate Lecture	National Technical University of Athens	Athens, Greece
2021	Horace Mann Medal and Lecture (Virtual)	Brown University	Providence, RI
2019	Indian Academy of Sciences Public Lecture	Indian Academy of Sciences (IISc)	Bangalore, India
2019	Aurel Stodola Lecture	ETH Zurich	Zurich, Switzerland
2018	Timoshenko Medal Lecture	ASME, Applied Mechanics Division, (IMECE)	Pittsburgh, PA
2018	Jan D. Achenbach Lecture	Civil & Environmental and Mechanical Engineering Dept., Northwestern University	Evanston, IL
2018	Umbgrove Lecture	Utrecht University, Geosciences (UU)	Amsterdam, Netherlands
2018	Simpson Lecture	Mechanical Engineering Department, Northwestern University	Evanston, IL
2017	Plenary Lecture	International Conference on Fracture (ICF-14)	Rhodes, Greece
2015	Induction Lecture into Academy of Athens	Academy of Athens	Athens, Greece
2013	The Nowinski Lecture	University of Delaware, Department of Mechanical Engineering	Newark, Delaware
2011	A. C. Eringen Medal Plenary Lecture	48 th Annual Technical Meeting of the Society of Engineering Science, Northwestern Univ.	Evanston, IL
2011	Mindlin Lecture	Department of Civil Engineering and Engineering Mechanics, Columbia University	New York, NY
2010	Robert Henry Thurston Lecture	ASME International Mechanical Engineering Congress & Exposition	Vancouver, British Columbia
2010	Earnest C. Watson Lecture Series	California Institute of Technology	Pasadena, CA
2010	New Developments in Elasticity: The Legacy of Robert Hooke	Mathematical Institute, University of Oxford	Oxford, England
2008	Astor Visiting Professor and Lecturer	Oxford University	Oxford, England
2007	Plenary Lecture	The Hellenic Society for Theoretical and Applied Mechanics, 8 th HSTAM International Congress on Mechanics, University of Patras	Patras, Greece
2007	Plenary Lecture	McMat 2007, ASME Applied Mechanics and Materials Conf. Univ. of Texas at Austin	Austin, TX
2007	The George R. Irwin Centennial Conference	University of Maryland	College Park, MD
2007	Alwin Schaller Distinguished Schaller Lectureship	Mechanical Science and Engineering Department, University of Illinois	Urbana-Champaign, IL
2007	Distinguished Lecture	Mechanical Engineering Department - Stony Brook University	Stony Brook, NY
2006	Keynote Speaker - Honoring Professor Subra Suresh, the Acta Gold Medalist	MRS 2006 Fall Meeting Symposium	Boston, MA
2006	Inaugural Distinguished Scholar Lecturer	Arizona State University	Tempe, AZ
2005	Plenary Lecturer, outstanding and recognized expertise in the field of Fracture Mechanics	11 th Conference on Fracture	Torino, Italy
2005	W.M. Murray Lecture- prestigious lecture honoring Dr. W.M. Murray for his many contributions to SEM	SEM Annual Conference	Portland, OR
2004	Distinguished Lecturer	Department of Mechanical Engineering	UC Riverside, CA
2004	Boeing Distinguished Researcher and Scholar Seminar Speaker	Boeing Company	Huntington Beach, CA
2004	Plenary Lecturer	7 th National Congress on Mechanics (HSTAM2004)	Chania- Crete, Greece
2003	James F. Bell Memorial Lecturer	Department of Mechanical Engineering, The Johns Hopkins	University, Baltimore, MD
2002	Plenary Lecturer	14 th European Conference on Fracture, ECF 14, <i>Fracture Mechanics Beyond 2000</i>	Cracow, Poland
2002	Keynote Speaker	14 th US National Congress of Applied Mechanics Virginia Polytechnic Institute	Blacksburg, VA
2000	Alumni Association Seminar Day Speaker	California Institute of Technology	Pasadena, CA
2000	Plenary Lecturer	Southeastern Theoretical and Applied Mechanics Conference, SECTAM XX	Pine Mountain, GA
1998	Speaker	Midwest Mechanics Seminar Tour	(nine universities)
1998	Plenary Lecturer	U.S. National Congress of Applied Mechanics	Gainesville, FL.
1997	Keynote Speaker	International Conference on Advanced Technology in Experimental Mechanics	Wakayama, Japan
1997	Keynote Speaker	Ninth International Conference on Fracture	Sydney, Australia
1995	Plenary Lecturer	ASME Summer Meeting	Los Angeles, CA

PUBLICATIONS AND CITATIONS

Over 220 refereed book chapters and journal publications. H-index: 70 (70 publications with at least 70 citations each). Over 15,900 total citations, Source: Google Scholar. Author of 13 Patents.

BOARDS, COUNCILS AND COMMITTEES:

Board of Directors, ANaiLYTICA, Inc.	ANaiLYTICA	Member	2021-Present
Organizing Committee, 1 st Int. Conference on Mechanics for Global Challenges (ICMGC), Singapore 2023	ICMGC	Member	2019-2023
Organizing Committee, 11 th Int. Conference on Materials for Advanced Technologies (ICMAT)	ICMAT	Member	2019-Present
NTU Graduate College Advisory Board	NTU	Member	2019-2023
Joint Dean of Engrg. & Dean of Science Search Advisory Committee	NTU	Chairman	2018
International Congress on Fracture	ICF	Vice President	2017
NAE Mechanical Engineering Peer Committee	NAE	Member	2017-2020
Northwestern Visiting Committee for Civil and Environmental Engrg.	Northwestern Univ.	Member	2017
Yachay Tech Univ. de Investigación de Tecnología Experimental	Board of Trustees	Honorary Member	2016-17
Yachay Tech Univ. de Investigación de Tecnología Experimental	Board of Trustees	Founding Chair	2014-2016
Board of Directors – Joint Center for Artificial Photosynthesis	JCAP	Member	2012
Applied Mechanics Division, Executive Committee	AMD of ASME	Chair	2011-12
MIT Visiting Committee for Aero/Astro	MIT	Member	2008-2015
GALCIT Director's Advisory Council, Caltech		Founder	2007
Keck Institute for Space Studies Steering Committee	KISS	Member	2007-2009
Aerospace Historical Society	AHS	Member	2007
Aerospace Historical Society	AHS	Chair	2006-09
Aerospace Historical Society	AHS	Chair	2017-2019
Aerospace Historical Society	AHS	Chair	2006-09
GALCIT/JPL Committee for Space Engineering Education	EAS	Chair	2005
Jet Propulsion Laboratory Advisory Council	JPL	Caltech Member	2005-
Committee for Constitution of Caltech's "Institute for Space Science"	CIT	Member	2005-2007
JPL Chief Technologist Selection Committee	JPL	Member	2005 -
Scientific Advisory Board, Oraxion, Diagnostics	Oraxion	Chair	2004-2006
Board of Directors, Oraxion Diagnostics	Oraxion	Member	2002-2004
EAS Division Steering Committee (DSC)	EAS	Member	2004
Faculty Nominating Committee, Faculty Board	CIT	Member	2000-2002
Caltech Faculty Board (<i>governing body</i>)	CIT	Member	1999-2002
Mechanical Sciences Program Review, Army Research Office, Research Triangle Park, NC	Board of Visitors	Member	1999-2000
Planning Committee for the Future of the EAS Division	EAS	Member	1999
SEM Technical Committee on future Technologies	SEM	Vice Chairman	1994-1999
American Society of Mechanical Engineers Technical Committee	ASME	Chairman	1986-1991
American Society of Mechanical Engineers Technical Committee	ASME	Vice Chairman	1986-1989
National Science Foundation, Individual Investigator Awards and Equipment Grants, Mechanics Program	NSF	Panel Member	1986

EDITORIAL BOARDS – Past and Present:

International Journal of Mechanics of Materials		Regional Editor	1998-2004
International Journal of Mechanics of Materials	Honorary Scientific Advisory Board and Editorial Board	Member	2004-2006
Journal of the Mechanics and Physics of Solids	Special issue on " <i>Dynamic Failure and Thin-Film Mechanics</i> "	Guest Editor	2003
Journal of Engineering Transactions	International Editorial Committee	Member	1996-2003
Journal of the Mechanics and Physics of Solids	Special issue on " <i>Dynamic Deformation and Failure Mechanisms in Solids</i> "	Guest Editor	1998
International Journal of Optics and Lasers in Engineering		Associate Editor	1993-1997
International Journal of Solids and Structures	Special issue on " <i>Dynamic Failure Mechanics of Modern Materials</i> "	Guest Editor	1995
International Journal of Optics and Lasers in Engineering	Special issue on " <i>Optical Method of Caustics</i> "	Guest Editor	1990
International Journal of Fracture	Special Issue on " <i>Non-Linear Fracture Mechanics</i> "	Guest Editor	1988

TECHNOLOGY TRANSFER:

2004 – 2006 Chair, Scientific Advisory Board, Oraxion Diagnostics, Fremont, CA
 2002 – 2004 Member, Board of Directors, Oraxion Diagnostics, Fremont, CA
 2002 Co-Founder (with S. Suresh, MIT) Oraxion Diagnostics Inc., a provider of advanced metrology systems for the semiconductor industry, based on Caltech & MIT technologies. This company was acquired by Ultratech in 2006

INVENTIONS AND PATENTS:

		Issued:	US Patent#:
1. <i>Surface Characterization Based on Optical Phase Shifting Interferometry</i>	M. Mello, A. Rosakis	2011	7,990,543 B1
2. <i>Characterizing Curvatures and Stresses in Thin-Film Structures on Substrates having Spatially Non-Uniform Variations</i>	A. Rosakis, Y. Huang	2011	7,966,135 B2
3. <i>Measuring Stresses in Multi-layer Thin Film Systems with Variable Film Thickness</i>	Y. Huang, A. Rosakis	2011	7,930,113
4. <i>Surface Characterization based on Lateral Shearing of Diffracted Wave Fronts to measure In-plane and Out-of-Plane Displacement Gradient Fields</i>	M. Mello, A. Rosakis	2009	7,538,891
5. <i>Techniques and Devices for Characterizing Spatially Non-Uniform Curvatures and Stresses in Thin-Film Structures of Substrates with Non-local Effects</i>	A. Rosakis, Y. Huang	2009	7,487,050
6. <i>Full-Field Optical Measurements of Surface Properties of Panels, Substrates and Wafers</i>	A. Rosakis, D. Owen, S. Gledden, S. Olson	2008	7,369,251
7. <i>Techniques for Analyzing Non-uniform Curvatures and Stresses in Thin-Film Structures on Substrates with Non-Local Effects</i>	A. Rosakis, Y. Huang	2008	7,363,173
8. <i>Systems for Measuring Stresses in line Features formed on Substrates</i>	S. Suresh, A. Rosakis	2005	6,924,497
9. <i>Determining Large Deformations and Stresses of Layered and Graded Structures to Include Effects of Body Forces</i>	A. Giannakopoulos, S. Suresh, A. Rosakis, I. Blech	2004	6,781,702
10. <i>Real-Time Evaluation of Stress Fields and Properties in Line Features Formed on Substrates</i>	S. Suresh, A. Rosakis	2003	6,600,565
11. <i>Coherent Gradient Sensing Ellipsometer</i>	D. Boyd, A. Rosakis, D. Owen	2002	6,469,788
12. <i>High Speed Infrared Imaging System and Method</i>	A.T. Zehnder, A. Rosakis, G. Ravichandran	2001	6,268,883
13. <i>Coherent Gradient Sensing Method and System for Measuring Surface Curvatures</i>	A Rosakis, R. Singh, E. Kolawa, N. R. Moore, Jr.	2000	6,031,611

TECHNICAL CONSULTING CONTACTS:

Boeing Aircraft, Grumman Aerospace, Intel Corporation, Jet Propulsion Laboratory, Los Alamos National Laboratories, McDonnell Douglas, Rockwell Science Center, ETech, Inc., Oraxion Diagnostics, Inc., Ceradyne Co., United Defense Co., Aonex, Inc., Northrop Grumman Company EnergyVault, Inc.

TEACHING EXPERIENCE:

1982-Present	California Institute of Technology – Division of Engineering and Applied Science <ul style="list-style-type: none"> - <i>Mechanics and Materials Aspects of Fracture</i> - <i>Static and Dynamic Failure of Brittle Solids and Interfaces, From the Micro to the Mega</i> - <i>Continuum Mechanics of Fluids and Solids</i> - <i>The Mechanics of Fracture</i> - <i>Stress Waves in Solids</i> - <i>Mechanics of Structures and Solids</i> - <i>Mathematical Elasticity Theory</i> - <i>Plasticity</i> - Also see lecture notes entitled <i>Elements of Dislocation Theories and Plasticity</i> - <i>Experimental Methods</i> - <i>Analytical Mechanics of Deformable Bodies</i> 	(Advanced Undergraduate/Graduate level – offered for both Engineering, Physics, Chemistry and Geophysics students) (Advanced Undergraduate/Graduate level – offered for both Engineering and Geophysics students) (Graduate level) (Graduate Level) (Graduate Level) (Graduate level) (Graduate level) (Advanced Undergraduate/First Year Graduate level) (Undergraduate level)
1975-1982	Oxford and Brown Universities: Teaching Assistant, Undergraduate Courses in Engineering (Brown University), informal Lecture series (Oxford) on special topics:	a) An introduction to fracture mechanics and the optical method of caustics (Brown University) b) Experimental methods in fracture mechanics (Oxford University)

SHORT COURSES:

		Organized by
2007	<i>Application of Fracture Mechanics Concepts to the Reliability Analysis of Microelectronic Components</i>	Intel Corporation, Chandler, AZ
2006	<i>Full-field Interferometry Applied to the Reliability of Thin Film Structure on Silicon Substrates</i>	Oraxion Diagnostics, Singapore
2003	<i>CGS Interferometry as a Wafer Level Metrology Tool</i>	International Sematech, Austin, TX
2000	<i>Fracture Mechanics of Microelectronics Device</i>	Intel University, Chandler, AZ
1994-1998	<i>Fracture Mechanics and Failure Analysis, an annual training course for engineers and scientists from national labs, industry and academia</i>	ETech, Inc., Pasadena, CA

PERSONNEL: Rosakis has graduated 26 PhD students and mentored 16 postdoctoral fellows. 14 of his former students now hold tenure-track positions around the world, of which 11 of them tenured. 11 of his former postdoctoral fellows now hold tenure-track faculty positions in universities, of which 6 of them tenured.

RESEARCH PERSONNEL – Current:

Students 2022-2024
Krittanon (Pond) Sivorattanakul

Postdoctoral Scholar 2022-2024
Dr. Attilio Lattanzi
Dr. Mohamed Abdelmeoud

Visiting Research Associates 2024
Dr. Vito Rubino
École Centrale de Nantes, **France**
Dr. Harsha S. Bhat
École Polytechnique, France

PERSONNEL – Past:**Doctoral Students: Academia:**

2015	V. Gabuchian	Research Scientist	California Institute of Technology
2012	M. Mello ▲ Δφ	Teaching Professor, Mechanical and Civil Engineering	California Institute of Technology
2010	L. Lamberson ▲	Assistant Professor, Dept. of Mechanical Engineering	Drexel University
2006	G. Lykotrafitis♦	Assistant Professor, Dept. of Mechanical Engineering	University of Connecticut
2005	K. Xia*	Assistant Professor, Civil Engineering & Lassonde Institute	China U. of Geosciences Beijing
2002	L.R. Xu	Associate Professor, Dept of Mechanical Engineering	University of Texas at El Paso
2001	D. Coker	Vice-Chair of Aerospace Engineering Department	Middle East Technical University
2001	P. Guduru ▲	Associate Professor, School of Engineering	Brown University
1998	D. Conner	Visiting Associate, Dept of Materials Science	California Institute of Technology
1995	H.A. Bruck	Associate Professor, Dept. of Mechanical Engineering	University of Maryland
1994	J. Lambros* ▲	Professor of Aeronautics	Univ. of Illinois/Urbana-Champaign
1990	X. Deng	Professor, Dept. of Mechanical Engineering	University of South Carolina
1989	S. Krishnaswamy ▲	Professor, Dept. of Mechanical Engineering	Northwestern University
1987	A.T. Zehnder	Professor, Dept. of Theoretical and Applied Mechanics	Cornell University
1986	R. Narasimhan	Professor of Mechanical Engineering, Indian Institute of Science	Bangalore, India

Doctoral Students: National Labs and Industry:

2021	V. Gabuchian	Sr. Test Engineer	EnergyVault, Inc.
2018	M. Gori *•	Research Scientist	Jet Propulsion Laboratory (JPL)
2013	J. Mihaly ▲	Technologist, Flight Instrument Detectors & Systems Group	Jet Propulsion Laboratory (JPL)
2009	X. Lu♦♦	Research Scientist	Intel Corporation
2007	M. Brown♦	Research Scientist	Northrop Grumman Aerospace Systems
2002	D. Anderson ▲	Sr. Technical Staff Member	General Electric Global Res. Center
2001	O. Samudrala	Sr. Technical Staff Member	General Electric Global Res. Center
2001	B. Chow	Senior Analyst	Rustic Canyon Ventures
1993	J. Mason	Principal Engineering Consultant	Rimkus Consulting Group, Inc.
1997	J. Hodowany* ▲	General Manager	JC Grand Corporation, Taiwan
1996	K. Fey	Senior Biomedical Engineer	A. E. Mann Foundation for Sci. Res.
1994	C. Liu	Senior Technical Staff Member	The Los Alamos National Laboratory
1992	L. Lu	Team Leader	EDS/Unigraphics

Engineer's Degree Student:

2001	K. Haberman		Los Alamos National Laboratory
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*	<i>William F. Ballhaus Prize</i>	Outstanding Doctoral Dissertation in Aeronautics.
▲	<i>Ernest E. Sechler Memorial Award</i>	Most Significant Teaching and Research Contribution to GALCIT.
♦	<i>Charles Babcock Memorial Award</i>	Graduate student whose achievements in teaching (or other assistance to students) has made a significant contribution to the Aeronautics group.
Δ	<i>Demetriades-Tsafka-Kokkalis Prize</i>	Best thesis in the area of Seismo-Engineering, Prediction and Protection.
φ	<i>Donald Coles Prize</i>	Graduating PhD student in Aeronautics whose thesis displays the best design of an experiment or the best design for a piece of experimental equipment.
•	<i>Hans G. Hornung Prize</i>	Best oral PhD presentation in Aeronautics.

Currently in Academia:

F. Benitez	Professor of Mechanical and Industrial Engineering	Univ. of Seville, Spain
H. Bhat	Research Scientist Teaching Professor	Centre Normale Supérieure Paris École Polytechnique, France
V. Chalivendra	Assistant Professor, Mechanical Engineering	University of Massachusetts
V. Eliasson	Associate Professor, Mechanical Engineering	Colorado School of Mines, CO
X. Feng	Associate Professor, Engineering Mechanics	Tsinghua University, Beijing, China
S. Hong	Assistant Professor, Mechanical Engineering	Michigan State University, MI
V. Rubino	Associate Professor	École Centrale de Nantes, France
C. Rousseau	Associate Professor	University of Rhode Island, Kingston, RI
R. Singh	Associate Professor of Mechanical and Aerospace Engineering	Oklahoma State University, OK
H. Tippur	Professor of Mechanical Engineering	Auburn University
M. Zhou	Professor of Mechanical Engineering	Georgia Tech, GA
J. Zhu	Assistant Professor of Civil and Environmental Engineering	Hong Kong Polytechnic University

Currently in Industry:

D. Anderson	Senior Technical Staff Member, General Electric Global Research Center	Niskayuna, NY
H. Lee	nLight Photonics	Seattle, WA
Y.J. Lee	Senior Scientist, Dow Corning	Midland, MI
D. Owen	Chief Technical Officer, Ultratech Inc.	San Jose, CA
T-S. Park	Key Account Technologist, Novellus	San Jose, CA
O. Samudrala	Senior Technical Staff Member, General Electric Global Research Center	

Visiting Faculty/Associates:

M. Adams	Senior Staff Member	Jet Propulsion Laboratory
H. Bhat	Visiting Professor	Nat. Inst. of Sci. Edu. & Res.(NISER) India
F.G. Benitez	Professor, Department of Mechanical Engineering	University of Seville, Spain
A.E. Elbanna	Assistant Professor, Civil and Environmental Engineering	Univ. of Illinois Urbana Champaign
E.E. Gdoutos	Visiting Associate in Aerospace	Academy of Athens, Greece
H. Georgiadis	Professor, Engineering Mechanics Division	National Technical Univ. of Athens, Greece
Y. Huang	Joseph Cummings Professor, Dept. of Mechanical Engineering, Clark Millikan Visiting Professor of Aeronautics (Caltech)	Northwestern University, IL
M. Oda	Assistant Professor, Faculty of Engineering	Kagoshima University, Kagoshima, Japan
K. Papoulia	Associate Professor, Department of Civil Engineering	University of Waterloo, Canada
D. Semenski	Associate Professor, Faculty of Mechanical Engineering and Naval Architecture University of Zagreb	Zagreb, Croatia
S. Suresh	Professor at Large at Brown School of Engineering Clark Millikan Visiting Professor of Aerospace (Caltech)	Brown School of Engineering
S. Suzuki	Professor, Department of Mechanical Engineering	Toyohashi University of Technology, Japan
Yuval Tal	Assistant Professor, Ben-Gurion University	Ben-Gurion University, Israel
I. Vardoulakis	Professor Engineering Mechanics	National Technical Univ. of Athens, Greece

SYMPOSIA ORGANIZED:

Jun 2011	Organizing Committee (with Huajian Gao, Kyung-Suk Kim and G. Ravichandran)	NSF Workshop and Symposium in Honor of Professor L. B. Freund	Brown University, Providence, RI
Jan 2011	Co-organizer (Nadia Lapusta, G. Ravichandran, and M Gurnis, Caltech)	Symposium on "Mechanics in Geophysical and Materials Sciences" in honor of James Rice 70 th Birthday	California Institute of Technology
Oct 2010	Co-organizer (with Dean Katsouleas, Duke, Pres. Miller, Olin and Dean Yortsos, USC)	2010 National Summit on the NAE National Grand Challenges Summit	University of Southern California
Jun 2010	Organizing Committee (with G. Ravichandran)	9 th International Conference on Sandwich Structures (ICSS-9)	California Institute of Technology
Nov 2009	Track Chair	2009 ASME International IMECE	Lake Buena Vista, FL
Mar 2009	Co-Chair	2009 IUTAM Symposium - Dynamic Fracture and Fragmentation	Austin, TX
2008	Chair, Lee-Ramo Symposium	EAS Division	California Institute of Technology
Sep 2008	Organizer	80 th Birthday of GALCIT and Re-Dedication of the Guggenheim Building	California Institute of Technology
2008	Chair	Lee-Ramo Symposia Committee, EAS Division	California Institute of Technology
Sep 2007	Co-organizer (with Dwight Streit, NGST)	50 Years in Space GALCIT/Caltech/JPL	California Institute of Technology
Jan 2006	Lead Organizer	Conference on Advanced Materials: Professor C. Fong Shih 60 th Birthday Commemoration	Institute for Materials Res. and Engineering (IMRE), Singapore
Jun 2003	Track Co-Organizer	Symposium on "Recent Advances in Dynamic Failure & Fracture Studies" SEM Annual Conf.	Charlotte, NC
Jan 2003	Co-Organizer (with G. Ravichandran, Caltech and S. Suresh, MIT)	ONR/Elsevier Symposium – "Dynamic Failure and thin Film Mechanics," in honor of Professor L.B. Freund's 60 th birthday	California Institute of Technology

Oct 2000	Co-Organizer (with G. Ravichandran)	Symposium on "On the Mechanics of Thin Films" Honor of William Prager Medal recipient, Professor L.B. Freund, SES 37 th Annual Technical Meeting	Columbia, SC
Oct 2000	Co-Organizer (with G. Ravichandran)	Symposium on "On the Dynamic Failure of Materials," Honor of William Prager Medal recipient, Professor L.B. Freund, SES 37 th Annual Technical Meeting	Columbia, SC
May 1997	Co-Organizer (with G. Ravichandran, M. Ortiz, Y.D.S. Rajapakse and K. Iyer)	ONR-ARO Symposium - "Dynamic Deformation & Failure Mechanics of Materials," to honor Prof. Rodney J. Clifton	California Institute of Technology
Nov 1995	Co-Organizer (with Y. Rajapakse, ONR and R. Batra, VPI)	Symposium on "Dynamic Failure Mode Selection in Solids," ASME Winter Meeting	San Francisco, CA
Jun 1995	Co-Organizer (with Y. Rajapakse, ONR)	Symposium on "Dynamic Deformation, Failure and Fracture," ASME Summer Meeting	UCLA, Los Angeles, CA
Feb 1994	Co-organizer (with Shukla, URI and Y. Rajapakse, ONR), ONR/ARO	Sponsored Symposium - "Dynamic Failure Mechanics of Modern Materials," in Memory of Professor Jacques Duffy	California Institute of Technology
1993	Co-organizer (with C.F. Shih, Brown U., and Y.D.S. Rajapakse, ONR)	Symposium on "The Physics and Mechanics of Bond Strength & Bond Failure of Bimaterial Interfaces," ASME Summer Meeting	VPI
Sep 1992	Co-organizer (with Y. Rajapakse, ONR)	Symposium on "Dynamic Fracture Mechanics," Society & Engrg. Sci. (SES) Annual Meeting	
1992	Co-organizer (with J. Giovanola, SRI International)	Symposium on the Promotion of the Application of Local Fracture/ Damage Models to Engineering Fracture Problems ASME Summer Mechanics and Materials Conference	Tempe, AZ
Mar 1991	Co-organizer (R. Abeyaratne, MIT, C.O. Horgan, U. of Virginia, P.J. Rosakis, Cornell U.)	Symposium on Contemporary Developments in Solid Mechanics, Honor of Professor J.K. Knowles 60th Birthday	
Jan 1991	Co-organizer (with P. Rossmannith, U. of Vienna)	International Symposium on Dynamic Failure of Materials	Vienna, Austria
May 1990	Co-organizer (with L.B. Freund, Brown U.)	Symposium on Failure Modes in Dynamic Fracture, the 11th U.S. National Congress of Applied Mechanics	University of Arizona
Jun 1988	Co-organizer (with K. Ravi-Chandar, U. of Houston, Y. Rajapakse, ONR)	Workshop on Three-Dimensional Fracture Processes, ASME Summer Annual Meeting Sponsored by ASME Technical Committee on Fracture Mechanics	Berkeley, CA
Mar 1988	Co-chairman (with W. G. Knauss, Caltech) Organizing Committee	IUTAM Symposium on Nonlinear Fracture Mechanics	California Institute of Technology
1983	Co-organizer (with W. G. Knauss, Caltech, K. Ravi-Chandar, U. of Houston)	Workshop on Dynamic Fracture, Sponsored by NSF and ARO	California Institute of Technology

INVITED LECTURES:

Sep 1981	18th Annual Meeting of the Society of Engineering Science	
Nov 1981	Grumman Aerospace Corporation	Bethpage, NY
Dec 1981	Fraunhofer-Institut fur Werkstoffmechanik, Freiburg,	West Germany
Feb 1981	University of Delaware, Department of Civil Engineering	Delaware
Feb 1981	Lehigh University, Department of Mechanical Engineering	
Mar 1981	California Institute of Technology, Division of Engineering and Applied Sci.	Pasadena, CA
Mar 1981	Tufts University, Department of Mechanical Engineering	
Mar 1981	Univ. of Illinois at Urbana-Champaign, Dept. of Theoretical & Applied Mechanics	Urbana-Champaign, IL
Apr 1981	Rensselaer Polytechnic Institute, Dept of Mechanical Engineering Mechanics	
Oct 1982	ASTM E24.08.01, Workshop on High Temperature and Dynamic Fracture, Harvard University	Boston, MA
Feb 1983	NSF, ARO Workshop on Dynamic Fracture, California Institute of Technology	Pasadena, CA
Jan 1984	Univ. of California Santa Barbara, Department of Mechanical Engineering	Santa Barbara, CA
Feb 1985	Columbia University, Department of Civil Engineering and Engineering Mechanics	New York, NY
Sep 1985	Douglas Aircraft Company	Long Beach, CA
Oct 1985	22nd Annual Meeting of the Society of Engineering Science, Penn State University	State College, PA
Oct 1985	University of California	San Diego, CA
Feb 1986	University of California	Santa Barbara, CA
Mar 1986	University of Houston	Houston, TX
Aug 1986	23rd Annual Meeting of the Society of Engineering Science	Buffalo, NY
Mar 1987	University of California	Los Angeles, CA

Apr 1987	International Conference on Fracture & Fracture Mechanics (ICFFM)	Shanghai, China
Jun 1987	ASME Summer Annual Meeting	Cincinnati, OH
Aug 1987	International Conference on Photomechanics and Spectrum Mechanics	San Diego, CA
Oct 1987	Fall Conference of the Soc. of Experimental Mech., devoted to <i>Dynamic Failure</i>	Savannah, GA
Mar 1988	Stanford University	Palo Alto, CA
Mar 1988	IUTAM Symposium on "Non-linear Fracture Mechanics," Caltech	Pasadena, CA
Mar 1988	Focused Lecture Series on Instrumentation and Measurement at High Strain Rates, UCSD	La Jolla, CA
Jun 1988	Joint ASME-S.E.S. Meeting	Berkeley, CA
Jan 1989	University of Seville	Seville, Spain
Mar 1989	Fourth International Conference on Mechanical Properties at High Strain Rates, Oxford	Oxford, England
Mar 1989	Imperial College	London, England
May 1989	12th Canadian Congress of Applied Mechanics (CANCAM)	Ottawa, Canada
May 1989	Army Symposium on Solid Mechanics	Newport, RI
Jul 1989	Oji International Seminar on Dynamic Fracture	Toyohashi, Japan
Feb 1990	Northwestern University	Chicago, IL
Feb 1990	University of Michigan	Ann Arbor, MI
Feb 1990	Massachusetts Institute of Technology	Cambridge, MA
May 1990	US National Congress on Applied Mechanics	Tucson, AZ
Nov 1990	Cornell University	Ithaca, NY
Nov 1990	Brown University	Providence, RI
Jan 1991	International Seminar on Dynamic Failure of Material	Vienna, Austria
Mar 1991	Symposium on Contemporary Developments in Solid Mechanics, Caltech	Pasadena, CA
Aug 1991	International Conference of Engineering and Structures	Singapore
Aug 1991	SPIE Meeting	San Diego, CA
Oct 1991	TMS Fall Meeting	Cincinnati, OH
Dec 1991	ASME Winter Annual Meeting	Atlanta, GA
Mar 1992	University of California – San Diego	La Jolla, CA
Jun 1992	SEM Annual Meeting	Las Vegas, NV
Jul 1992	ONR Symposium on Composite Materials, University of Maryland	College Park, MD
Sep 1992	SES Meeting	San Diego, CA
Sep 1992	ONR Symposium on Underwater Explosion Effects on Structures and Shock Mitigation, University of Maryland	College Park, MD
Jun 1993	SES/ASME/ASCE Conference	Charlottesville, VA
Jun 1993	IUTAM Symposium on Computational Mechanics, Brown University	Providence, RI
Jul 1993	Department of Engineering Science, University of Oxford	Oxford, UK
Jul 1993	Department of Mechanical Engineering, Imperial College of Science and Technology	London, UK
Aug 1993	Army Symposium on Solid Mechanics	Plymouth, MA
Apr 1994	Department of Mechanical Engineering, Case Western Reserve University	Cleveland, OH
Jun 1994	Department of Mechanical, Aeronautical and Nuclear Engineering, UCLA	Los Angeles, CA
Nov 1994	Los Alamos National Laboratory	Los Alamos, NM
Mar 1995	Detonation Theory and Application Group, T-14, Los Alamos National Lab	Los Alamos, NM
Jun 1995	ASME Summer Meeting, (Plenary Address)	Los Angeles, CA
Jun 1995	McDonnell Douglas Aircraft Company	Long Beach, CA
Oct 1996	Department of Mechanical Engineering, The University of Rhode Island	Kingstown, RI
Mar 1997	Department of Mechanical Engineering, The Georgia Institute of Technology	Atlanta, GA
Apr 1997	International Conference on Fracture, (Keynote Address)	Sydney, Australia
Jul 1997	Int'l Conference on Advance Technology in Experimental Mechanics, (Keynote Address)	Wakayama, Japan
Aug 1997	Second Euroconference and International Symposium on Material Instabilities in Deformation and Fracture	Thessaloniki, Greece
Sep 1997	1 st International Conference on Damage and Failure of Interfaces, DFI-1	Vienna, Austria
Oct 1997	12 th Annual Technical Conference of the American Society of Composites	Dearborn, MI
Nov 1997	ASME Winter Annual Meeting	Dallas, TX
Dec 1997	Department of Civil Engineering, University of Illinois at Urbana-Champaign	Urbana, IL
Dec 1997	Raftopoulos Symposium Honoring Professor Demetrios D. Raftopoulos	Xanthi, Greece
Jan 1998	2 nd Meeting of the Meso-Mechanical Aspects of Material Strength and Fracture, California Institute of Technology	Pasadena, CA
Jun 1998	US National Congress of Applied Mechanics (Plenary Address)	Gainesville, FL
Aug 1998	11 th International Conference on Experimental Mechanics	Oxford, UK
Sep 1998	Mechanical Engineering Colloquium, Department of Mechanical Engineering, Massachusetts Institute of Technology	Cambridge, MA
Sep 1998	35 th Annual Technical Meeting of SES, Washington State University	Pullman, WA
Nov 1998	Applied Mechanics Colloquium, Harvard University	Cambridge, MA
Nov 1998	1998 International Mechanical Engineering Congress and Exposition of the ASME	Anaheim, CA
Nov 1998	Department of Naval Architecture and Marine Engineering, University of Michigan, (Midwest Mechanics Seminar Tour)	Ann Arbor, MI
Dec 1998	Dept. of Mat. Science and Mech., Michigan State Univ. (Midwest Mech.Seminar Tour)	Lansing, MI

Dec 1998	McCormick School of Engineering and Applied Science, Northwestern University, (Midwest Mechanics Seminar Tour)	Evanston, IL
Dec 1998	Dept. of Engineering Research, Univ. of Wisconsin, (Midwest Mechanics Seminar Tour)	Madison, WI
Dec 1998	Department of Aerospace Engineering and Mechanics, University of Minnesota, (Midwest Mechanics Seminar Tour)	Minneapolis, MN
Dec 1998	Materials Research Society (MRS) 1998 Fall Meeting	Boston, MA
Dec 1998	Symposium on the Validation and Verification of Computational Mechanics Codes, California Institute of Technology	Pasadena, CA
Apr 1999	Department of Aerospace and Mechanical Engineering, University of Notre Dame, (Midwest Mechanics Seminar Tour)	South Bend, IN
Apr 1999	Metallurgical and Materials Engineering, Illinois Institute of Technology, (Midwest Mechanics Seminar Tour)	Chicago, IL
Apr 1999	Department of Theoretical and Applied Mechanics, University of Illinois At Urbana-Champaign, (Midwest Mechanics Seminar Tour)	Urbana, IL
Apr 1999	Aeronautical & Astronautical Engineering, Purdue University, Midwest Mech. Sem. Tour	West Lafayette, IN
Jun 1999	1999 SEM Annual Conference	Cincinnati, OH
Jun 1999	1999 ASME Mechanics and Materials Conference, Virginia Polytechnic Institute	Blacksburg, VA
Jul 1999	12 th International Conference on Composite Materials (ICCM12)	Paris, France
Oct 1999	36 th Annual Meeting of the Society of Engineering Science (SES99), University of Texas	Austin, TX
Nov 1999	1999 International Mechanical Engineering Congress and Exposition	Nashville, TN
Dec 1999	American Geophysical Union (AGU) 1999 Fall Meeting	San Francisco, CA
Mar 2000	The American Physical Society (APS) March 2000 Meeting	Minneapolis, MN
Mar 2000	Geophysics Seminar, Dept. of Earth Sciences, University of Southern California (USC)	Los Angeles, CA
Apr 2000	20 th Southeastern Theoretical and Applied Mechanics Conference (SECTAMXX), (Keynote Address)	Pine Mountain, GA
May 2000	Caltech Alumni Day Seminar Talk, California Institute of Technology	Pasadena, CA
Jun 2000	ARO Workshop on Advanced Heterogeneous Systems, UCLA	Los Angeles, CA
Aug 2000	20 th International Congress of Theoretical and Applied Mechanics (ICTAM 2000)	Chicago, IL
Sep 2000	3 rd International Congress of Croatian Society of Mechanics	Cavtat - Dubrovnik, Croatia
Oct 2000	Brown University Invited Lecture, Department of Engineering, Brown University	Providence, RI
Oct 2000	17 th Danubia-Adria Symposium on Experimental Methods in Solid Mechanics,	Prague, Czech Republic
Oct 2000	37 th Annual Technical Meeting for the Society of Engineering Science (SES 2000), University of South Carolina	Columbia, SC
Nov 2000	2000 International Mechanical Engineering Congress and Exposition of the American Society of Mechanical Engineers (ASME-IMECE 2000)	Orlando, FL
Dec 2000	American Geophysical Union (AGU) 2000 Fall Meeting	San Francisco, CA
Apr 2001	Material Research Society (MRS) 2001 Spring Meeting	San Francisco, CA
Jun 2001	2001 Mechanics and Materials Conference, Univ. of California, San Diego	San Diego, CA
Jul 2001	Gordon Research Conference - Materials Processes Far From Equilibrium,	Meriden, NH
Nov 2001	2001 International Mechanical Engineering Congress and Exposition of the American Society of Mechanical Engineers (ASME-IMECE 2001)	New York, NY
Dec 2001	10 th International Conference on Fracture (ICF-10)	Honolulu, HI
Apr 2002	École Normale Supérieure Invited Lecture	Paris, France
Apr 2002	École Polytechnique Invited Lecture	Paris, France
Jun 2002	14 th US National Congress of Applied Mechanics, Symposium on Material Failure at High Strain Rates, Virginia Polytechnic Institute, (Keynote Address)	Blacksburg, VA
Jun 2002	14 th US National Congress of Applied Mechanics, Symposium on Research and Education in Experimental Mechanics honoring Professor J.W. Dally, Virginia Polytechnic Institute	Blacksburg, VA
Jun 2002	14 th US National Congress of Applied Mechanics, Symposium on Recent Advances in Experimental Mechanics honoring Professor I.M. Daniel, Virginia Polytechnic Institute	Blacksburg, VA
Jun 2002	14 th US National Congress of Applied Mechanics, Symposium on Topics in Mechanics of Materials honoring Professor W.G. Knauss, Virginia Polytechnic Institute	Blacksburg, VA
Jul 2002	Workshop on Friction, Fracture, and Earthquake Physics, Keck Symposium, Kavli Institute for Theoretical Physics, University of California	Santa Barbara, CA
Aug 2002	22 nd Course of the International School of Geophysics, ERMES – Earthquake Mechanics, Earth Structure, and Related Problems Conference, Ettore Majorana Foundation and Centre for Scientific Culture, Erice	Trapani, Sicily
Sep 2002	14 th European Conf. on Fracture (ECF14), Frac. Mech. Beyond 2000, (Keynote Address)	Cracow, Poland
May 2003	Geological and Planetary Sciences Division Seminar, California Institute of Technology	Pasadena, CA
Jun 2003	Society for Experimental Mechanics (SEM) Conference, Symposium on Dynamic Failure	Charlotte, NC
Jun 2003	Society for Experimental Mechanics (SEM) 2003 Conference, Symposium on Recent Advances in Dynamic Failure and Fracture Studies – Dynamic Interfacial Fracture	Charlotte, NC
Jun 2003	Society for Experimental Mechanics (SEM) 2003 Conference, Symposium on Impact Behavior of Engineering Materials II	Charlotte, NC
Jun 2003	Society for Experimental Mechanics (SEM) 2003 Conference, Symposium on Dynamic Failure and Fracture of Interfaces, Interphases, and Layered Media I	Charlotte, NC

Jun 2003	Society for Experimental Mechanics (SEM) 2003 Conference, Symposium on Dynamic Failure and Fracture of Interfaces, Interphases, and Layered Media II	Charlotte, NC
Jul 2003	14 th International Conference on Composite Materials (ICCM-14)	San Diego, CA
Jul 2003	Ringberg Workshop on Dynamic Fracture	Munich, Germany
Oct 2003	Seismology Seminar, Dept. of Earth and Space Sciences, UCLA	Los Angeles, CA
Nov 2003	Bell Memorial Lecture in Continuum Mechanics, The Johns Hopkins University	Baltimore, MD
Nov 2003	2003 International Mechanical Engineering Congress and Exposition of the American Society of Mechanical Engineers (ASME-IMECE 2003)	Washington, DC
Dec 2003	American Geophysical Union (AGU) 2003 Fall Meeting	San Francisco, CA
Apr 2004	University of Southern California, Earthquake Physics Seminar	Los Angeles, CA
May 2004	Distinguished Lecture Series, Department of Mechanical Engineering, University of California at Riverside	Riverside, CA
May 2004	SIAM Conference on Mathematical Aspects of Materials Science	Los Angeles, CA
Jun 2004	7 th National Congress on Mechanics – Hellenic Society for Theoretical and Applied Mechanics (HSTAM), (Keynote Address)	Chania, Greece
Sep 2004	Boeing Distinguished Researcher & Scholar Seminar (B-DRASS)	Huntington Beach, CA
Oct 2004	2 nd International Conference on Multiscale Materials Modeling, School of Engineering and Applied Science at UCLA	Los Angeles, CA
Oct 2004	Mechanics Symposia, 2004 ASME/STLE International Joint Tribology Conference, Hilton Long Beach	Long Beach, CA
Nov 2004	Presidents Circle Talk, California Institute of Technology	Pasadena, CA
Nov 2004	2004 ASME International Mechanical Engineering Congress& RD&D Expo	Anaheim, CA
Nov 2004	W.G. Knauss Symposium, California Institute of Technology	Pasadena, CA
Mar 2005	11 th International Conference on Fracture, (Plenary Address)	Torino, Italy
Jun 2005	Murray Medal Lecture, Society for Experimental Mechanics, SEM Annual Conference, (Honor Lecture)	Portland, OR
Jul 2005	Lecture Series, Department of Terre-Atmosphere-Ocean, École Normale Supérieure	Paris, France
Jul 2005	Lecture Series, Institut de Physique du Globe	Paris, France
Nov 2005	Kavli Institute for Theoretical Physics, Conf. on Friction, Fracture & Earthquake Physics	Santa Barbara, CA
Dec 2005	American Geophysical Union (AGU) 2005 Fall Meeting	San Francisco, CA
Jan 2006	National University of Singapore, Civil Engineering Department	Singapore
Jan 2006	2 nd MRS-S Conference on Advanced Materials, Symposium on Physics and Mechanics of Advanced Materials, Prof. C.F. Shih Symposium (Co-Chair)	Singapore
Feb 2006	Inaugural Distinguished Scholar Lecture, Mechanical and Aerospace Engineering, Arizona State University	Tempe, AZ
Feb 2006	National Institute of Science and Caltech Seismology Lab, Kanamori Symposium	Pasadena, CA
Mar 2006	President's Discovery Weekend 2006, EAS Session, California Institute of Technology	Pasadena, CA
May 2006	Northrop Grumman Space Technology, Presentation Center (STPC)	Redondo Beach, CA
Oct 2006	Lecture Mechanical Engineering Department, Columbia University School of Engineering and Applied Science	New York, NY
Nov 2006	Symposium to Honoring Professor Subra Suresh, the Acta Gold Medalist, held during the MRS 2006 Fall Meeting (Keynote Speaker)	Boston, MA
Dec 2006	American Geophysical Union (AGU) 2006 Fall Meeting	San Francisco, CA
Dec 2006	Transforming Space Conference, the California Space Authority, Education and Workforce Panel	Los Angeles, CA
Jan 2007	Distinguished Lecture, Mechanical Engineering Department Distinguished Lecture at Stony Brook University, (Honor Lecture)	Stony Brook, NY
Feb 2007	2007 Stewardship Science Academic alliances (SSAA) Program Symposium, National Nuclear Security Administration (NNSA), Carnegie Institution,	Washington DC
Mar 2007	US Geological Survey Earthquake Hazards Seminar Series	Menlo Park, CA
Mar 2007	The George R. Irwin Centennial Conference, University of Maryland	College Park, MD
May 2007	Alwin Schaller Distinguished Lectureship, Mechanical Science and Engineering Department, University of Illinois (Honor Lecture)	Urbana-Champaign, IL
May 2007	School of Earth Sciences, Department of Geophysics, Stanford University	Palo Alto, CA
Jun 2007	McMat 2007, ASME Applied Mechanics and Materials Conference, U. of Texas at Austin (Plenary Lecture)	Austin, TX
May 2008	Oxford University, Astor Lecture (Honor Lecture)	Oxford, UK
May 2008	Oxford University Department of Engineering	Oxford, UK
Jun 2008	Southern California Earthquake Center (SCEC) Fault Zones Workshop	Oxnard, CA
Nov 2008	2008 ASME International Mechanical Engineering Congress and Exposition (IMECE)	Boston, MA
Jan 2009	Theoretical & Applied Mechanics (TAM) Colloquium, Northwestern University, Civil and Environmental Departments	Chicago, IL
Mar 2009	IUTAM Symposium: Dynamic Fracture and Fragmentation	
Apr 2009	SAA 2009 Seismological Society of America, Special Session – Supershear Earthquake Rupture Speeds	Monterey, CA
June 2009	SEM Annual Conference and Exposition on Experimental and Applied Mechanics,	Albuquerque, NM

Jan 2010	International Conference on "New Developments in Elasticity: the Legacy of Robert Hooke Mathematical Institute, University of Oxford	Oxford, UK
Feb 2010	Earnest C. Watson lecture Series, California Institute of Technology, Beckman Auditorium (Honor Lecture)	Pasadena, CA
Mar 2010	Joint Seminar, MAE Mechanical and Materials Engineering and Scripps Institution of Oceanography, University of California	San Diego, CA
Mar 2010	2010 Japan Society of Mechanical Engineers/Materials and Mechanics Division Symposium for Young Researchers, California Institute of Technology	Pasadena, CA
Oct 2010	The Robert Henry Thurston Lecture, ASME International Mechanical Engineering Congress & Exposition (Honor Lecture)	Vancouver, B.C.
Oct 2010	2010 National Summit on the Nation Academy of Engineering Grand Challenges, University of Southern California	Los Angeles, CA
Jan 2011	Symposium on Mechanics in Geophysical and Materials Science, In honor of Professor James R. Rice, California Institute of Technology	Pasadena, CA
Mar 2011	The Mindlin Lecture, Department of Civil Engineering and Engineering Mechanics, Columbia University (Honor Lecture)	New York, NY
May 2011	The Royal Astronomical Society, Earthquake Mechanics and Supershear Rupture Speeds	London, England
Jun 2011	Symposium in honor of Professor L. B. Freund, "Future Directions in Mechanics Research", Brown University	Providence, RI
Oct 2011	A. C. Eringen Medal Plenary Lecture, 48 th Annual Technical Meeting of the Society of Engineering Science, Northwestern University (Honor Lecture)	Evanston, IL
Jan 2012	University of California Davis – College of Engineering, College Distinguished Lecture	Davis, CA
Jan 2012	ARCS Foundation (Achievement Rewards for College Scientists) ARCS Scholar Recognition Lecture , California Club	Los Angeles, CA
Feb 2012	UCLA Distinguished Lecture Series in Structural Engineering and Mechanics	Los Angeles, CA
May 2012	Caltech Alumni Association, Ruben H. Fleet Science Center, San Diego	San Diego, CA
June 2012	Institut de Physique du Globe de Paris (IPGP) , Tectonique et mécanique de la lithosphère Sismologie Bureau IPGP Amphitheater	Paris, France
Dec 2012	Geophysics Colloquium in the Department of Earth Sciences, ETH	Zurich, Switzerland
Apr 2013	The Nowinski Lecture, University of Delaware, Department of Mechanical Engineering (Honor Lecture)	Newark, DE
July 2013	Knowledge for the Future, Joint Assembly Gothenburg, IAHS-IAPSO-IASPEI, Gothenburg, Sweden	Gothenburg, Sweden
Nov 2013	ASME 2013 International Mechanical Engineering Congress and Exposition (IMECE), Drucker Medalist Symposium	San Diego, CA
Dec 2015	Special General Session of the Academy of Athens (National Academy of Greece) lecture marking the occasion of Rosakis' induction into the Academy (Honor Lecture)	Athens, Greece
Dec 2016	American Geophysical Union (AGU) 2016 Fall Meeting	San Francisco, CA
Jun 2017	14 th International Conference on Fracture (ICF-14) (Plenary Lecture)	Rhodes, Greece
Feb 2018	Nanyang Technological University, the Earth Observatory of Singapore (EOS), NTU	Singapore
Mar 2018	Simpson Lecture, Mechanical Engineering Department, Northwestern University (Honor Lecture)	Evanston, IL
May 2018	Umbgrove Lecture in Geosciences, Utrecht University (UU) (Honor Lecture)	Amsterdam, Netherlands
May 2018	Jan D. Achenbach Lecture, Civil & Environmental and Mechanical Engineering Departments, Northwestern University (Honor Lecture)	Evanston, IL
May 2018	École Normale Supérieure, Laboratoire de Géologie, (Department of Geophysics)	Paris, France
Nov 2018	Timoshenko Medal Lecture, ASME, Applied Mechanics Division, ASME 2018 International Mechanical Engineering Congress and Exposition (IMECE) (Honor Lecture)	Pittsburgh, PA
Sep 2019	Indian Institute of Sciences Public Lecture at IISc, (Honor Lecture)	Bangalore, India
Nov 2019	Aurel Stodola Lecture on the 160 th Anniversary of Professor Stodola's birth	ETH Zurich, Switzerland
May 2021	Horace Mann Medal and Lecture – Brown University Alumni award (Honor Lecture)	Providence, RI
Oct 2022	Society of Engineering Science 2022 Annual Technical Meeting (SES) Prager Medal Symposium, (Keynote Lecture)	College Station, TX
Nov 2022	ASME 2022 International Mechanical Engineering Congress and Exposition (IMECE), Drucker Medalist Symposium (Plenary Lecture)	Columbus, OH
March 2022	Lecture Honoring Prof. Honggang Huang on the Occasion of his 60 th Birthday, (Keynote Lecture)	University of Houston, TX
March 2023	Rockwell Distinguished Lecture (Honor Lecture)	University of Houston, TX
April 2023	Athens College Lecture to Students and Classmates	Athens, Greece
February 2024	Southern Methodist Univ. Lyle School of Engrg, Inaugural Distinguished Lecture (Honor Lecture)	Dallas, TX

PROCEEDINGS EDITED:

Feb 1983	Co-editor of the Proceedings of the Workshop on Dynamic Fracture (with W.G. Knauss and K. Ravi-Chandar) Sponsored by NSF and ARO	California Institute of Technology, Pasadena, CA.
Mar 1988	Co-editor of the Proceedings of the IUTAM Symposium on Non-Linear Fracture Mechanics, Special issue of the <i>International Journal of Fracture</i> devoted to "Non-Linear Fracture Mechanics."	California Institute of Technology, Pasadena, CA,
Jun 1988	Co-editor of the Proceedings of the Workshop on "Three-Dimensional Fracture Processes," ASME AMD - Vol. 91, Joint ASME/SES meeting	Berkeley, CA,
1990	Guest Editor of the Special Issue of the <i>International Journal of Optics and Lasers in Engineering</i> devoted to the "Optical Method of Caustics"	
Jan 1991	Co-editor of the Proceedings of the <i>International Symposium on Dynamic Failure of Materials</i> , The Technical University of Vienna	Vienna, Austria
1992	Co-editor of the Proceedings of the <i>Symposium on the Promotion of the Application of Local Fracture/Damage Models to Engineering Fracture Problems</i> , ASME SAM	Tempe, AZ
Feb 1994	Co-editor of the Special Volume and Proceedings of the Symposium on "Dynamic Failure Mechanics of Modern Materials, in Memory of Jacques Duffy," published by <i>International Journal of Solids and Structures</i> , 1995.	California Institute of Technology, Pasadena, CA
May 1997	Co-editor of the Special Volume and Proceedings of the ONR/ARO Sponsored Symposium on "Dynamic Deformation and Failure Mechanics of Solids," organized in honor of Professor Rodney Clifton's 60th birthday, published by the <i>Journal of the Mechanics and Physics of Solids</i> , 1998	California Institute of Technology, Pasadena, CA,
Jan 2003	Co-editor of the Special Volume and Proceedings of the NSF/ONR/Elsevier Sponsored Symposium on "Dynamic Failure and Thin Film Mechanics," organized in honor of Professor L.B. Freund's 60 th birthday, published by the <i>Journal of the Mechanics and Physics of Solids</i>	California Institute of Technology, Pasadena, CA,
	Guest-editor of the special issue of the International Journal of Solids and Structures (IJSS) of the 2 nd MRS-S Conference on Advanced Materials, Symposium on Physics and Mechanics of Advanced Materials, Prof. C.F. Shih Symposium, 60th Birthday (Special Volume 06), Institute of Materials Research and Engineering (IMRE)	Singapore

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2. Rosakis, A.J., Ma, C.C., Freund, L.B.
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 “Dynamically Propagating Shear Bands in Prenotched Plates,” 31st Annual Meeting of the SES, Dynamic Failure Mechanics Session, Texas A&M, College Station, TX, October 1994
- 75 Rosakis, A.J., Lambros, J., Karyeaclis, M.
 “Experimental Investigation of Dynamic Delamination on Thick Polymeric Composite Laminates,” ASME Winter Annual Meeting, Proceedings of the Symposium on Failure Prediction in Advanced Polymeric Composites, Chicago, IL, December 1994
- 76 Lambros, J., Rosakis, A.J.
 “Catastrophic failure of Bimaterials,” ASME Winter Annual Meeting, Symposium on the Mechanics and Materials Aspects of Failure, Chicago, IL, December 1994 **(Invited Contribution)**
- 77 Rosakis, A.J.
 “Two-Dimensional Shear Bands Growing Dynamically in Plates: An Investigation of Transient Deformation Fields, Temperature Fields and Shear Band Toughness,” ASME Summer Meeting, UCLA, Los Angeles, CA, June 1995 **(Plenary Address)**
- 78 Rosakis, A.J., Lambros, J.
 “Shear-Dominated, Intersonic Decohesion of Interfaces,” Symposium on “Dynamic Deformation, Failure and Fracture,” ASME Summer Meeting, UCLA, Los Angeles, CA, June 1995 **(Invited Contribution)**
- 79 Rosakis, A.J., Ravichandran, G., Zhou, M.
 “Real-Time Experimental Observations of Two-Dimensional Dynamic Shear Band Growth,” Proceedings of the Symposium on “Fracture and Plastic Instabilities, ASME Summer Meeting, UCLA, Los Angeles, CA, June 1995 **(Invited Contribution)**
- 80 Hodowany, J., Ravichandran, G., Rosakis, A.J.
 “Experimental Determination of the Strain and Strain Rate Dependence of the Fraction of Plastic Work Converted to Heat,” ASME Summer Meeting, UCLA, Los Angeles, CA, June 1995
- 81 Rosakis, A.J., Lambros, J., Karyeaclis, M.
 “Experimental Investigation of Impact Induced Delamination in Thick Composite Plates Using High Speed Photography and CGS Interferometry,” ASME Meeting, W. Goldsmith Symposium, UCLA, Los Angeles, CA, June 1995 **(Invited Contribution)**
- 82 Rosakis, A.J., Ravichandran, G., Zhou, M.
 “High Speed Temperature and Deformation Field Measurements at the Vicinity of Dynamically Growing Shear Bands,” The 1995 ASME/JSME Pressure Vessels and Piping Division Conference, Honolulu, HI, July 1995 **(Invited Contribution)**
- 83 Rosakis, A.J., Ravichandran, G., Zhou, M.
 “Dynamically Growing Shear Bands in Materials: High Speed Optical and Infrared Measurements of Temperature and Deformation Fields,” Proceedings of the IUTAM Symposium on Nonlinear Analysis of Fracture, University of Cambridge, UK, September 1995 **(Invited Contribution)**
- 84 Zhou, M., Rosakis, A.J., Ravichandran, G.
 “Two Dimensional Dynamic Shear Band Growth in Prenotched Metal Plates Subjected to Asymmetric Impact,” Symposium on Adiabatic Shear Banding,” SES Conference, New Orleans, LA, October 1995 **(Invited Contribution)**
- 85 Rosakis, A.J., Ravichandran, G., Zhou, M.
 “Two-Dimensional Shear Band Growth in Metal Plates: An Investigation of Thermomechanical Signatures and Shear Band Driving Force Notions,” ASME Winter Annual Meeting, San Francisco, CA, November 1995 **(Invited Contribution)**
- 86 Lambros, J., Rosakis, A.J.
 “Dynamic Decohesion of the Interface Between Two Dissimilar Media,” International Conference on Mathematical Methods in Physics, Mechanics & Mesomechanics of Fracture, Meso Fracture 96, Tomsk, Russia, Aug. 27-29, 1996 **(Invited Contribution)**
- 87 Zhou, M., Rosakis, A.J., Ravichandran, G.
 “On the Growth of Shear Bands and Failure-Mode Transition in Prenotched Plates: A Study Using Singly & Doubly Notched Specimens, ASME Winter Annual Meeting, Special Session on Dynamic Failure Mode Transition in Solids, (A.J. Rosakis & R.C. Batra, Org.), Chicago, IL, 1996
- 88 Singh, R.P., Guduru, R.P., Rosakis, A.J., Ravichandran, G.
 “Dynamic Crack Initiation: Optical and Temperature Measurements,” Symposium on Ductile Fracture, TMS Annual Meeting, Orlando, FL, February 9-13, 1997
- 89 Haberman, K.S., Bennet, J.G., Liu, C., Stout M.G., Rosakis, A.J.
 “The Dynamic Inelastic Behavior in Fiber Reinforced Composite Materials,” Los Alamos Tech.Report, LA-13272-MS, March 1997
- 90 Rosakis, A.J.
 “Dynamic, Shear-Dominated Intersonic Failure of Layered Solids,” Ninth International Conference on Fracture, Sydney, Australia, April 1-5, 1997 **(Keynote Address)**
- 91 Rosakis, A.J., Samudrala, O., Singh, R.P., Coker, D.
 “Intersonic Crack Propagation in Layered Systems,” Proceedings, ONR/ARO Symposium on the Dynamic Deformation and Failure Mech. of Materials, Honoring Professor R.J. Clifton, Caltech, Pasadena, CA, May 22-24, 1997 **(Invited Contribution)**

- 92 Ravichandran, G., Guduru, P.R., Singh, R.P., Rosakis, A.J.
 “Dynamic Crack Initiation in Ductile Steels,” Proceedings, ONR/ARO Symposium on the Dynamic Deformation and Failure
 Mechanics of Materials, Honoring Professor R.J. Clifton, Caltech, Pasadena, CA, May 22-24, 1997 **(Invited Contribution)**
- 93 Rosakis, A.J.
 “Dynamic Shear-Dominated, Intersonic Crack Growth in Bimaterials and Layered Systems and its Relationship to Earthquake
 Rapture,” Proceedings of the International Conference on Advanced Technology in Experimental Mechanics, Wakayama, Japan,
 July 1997 **(Keynote Address)**
- 94 Rosakis, A.J.
 “Intersonic and Supersonic Fracture of Bimaterial Interfaces and its Relation to Geological Fault Rapture,” Second Euroconference
 and International Symposium on Material Instabilities, Thessaloniki, Greece, Aug 29 - Sep 5, 1997 **(Invited Contribution)**
- 95 Singh, R.P., Rosakis, A.J., Samudrala, O., Shukla, A.
 “Two Optical Techniques Applied to the Investigation of the Mechanics of Intersonic Crack Propagation along a Bimaterial
 Interface,” 1st International Conference on Damage and Failure of Interfaces, DFI-1, Vienna, Austria, September 22-24, 1997
(Invited Contribution)
- 96 Rosakis, A.J. Liu, C., Stout, M., Coker, D.
 “Subsonically and Intersonically Moving Dynamic Cracks in Laminated Composites,” 12th Annual Technical Conference of the
 American Society of Composites, Dearborn, MI, October 6-8, 1997 **(Invited Contribution)**
- 97 Rosakis, A.J., Singh, R.P., Tsuji, Y., Kolawa, E., Moore, Jr., N.R.
 “Full Field Measurements of Curvature Using Coherent Gradient Sensing: Application to Thin Film Characterization,” ASME
 Winter Annual Meeting, Dallas, TX, November 16-21, 1997
- 98 Rosakis, A.J., Liu, C., Stout, M., Lambros, J.
 “Dynamic Fracture of Unidirectional Composites,” Symposium on Multiscale Analysis, ASME Winter Annual Meeting, Dallas, TX,
 November 16-21, 1997 **(Invited Contribution)**
- 99 Guduru, P., Rosakis, A.J., Singh, R., Ravichandran, G.
 “Dynamic Crack Initiation in Highly Ductile Metals,” U.S. National Congress of Applied Mechanics, Gainesville, FL, June 1998
- 100 Pandolfi, A., Ortiz, M., Guduru, P., Rosakis, A.J.
 “Three Dimensional Analysis & Experiments of Dyn. Frac. of Metals,” U.S. Nat. Cong. of App. Mech., Gainesville, FL, Jun 1998
- 101 Yu, R., Xu, R., Ortiz, M., Rosakis, A.J.
 “Three Dimensional Analysis and Experiments of Dynamic Decohesion in Layered Structures,” U.S. National Congress of Applied
 Mechanics, Gainesville, FL, June 1998
- 102 Coker, D., Rosakis, A.J.
 “Dynamic Crack Initiation in Unidirectional Graphite-Epoxy Composite Materials,” U.S. National Congress Applied Mechanics,
 Gainesville, FL, June 1998
- 103 Rosakis, A.J.
 “Intersonic, Shear Dominated, Dynamic Crack Growth in Bimaterials and Composites,” U.S. National Congress of Applied
 Mechanics, Gainesville, FL, June 1998 **(Plenary Address)**
- 104 Liu, C., Stout, M.G., Rosakis, A.J., Haberman, K.S., Bennett, J.G.
 “Dynamic Failure of a Graphite/Epoxy Composite Material: Experiment and Simulation,” 11th International Conference on
 Experimental Mechanics, Oxford, UK, August 1998 **(Invited Contribution)**
- 105 Stout, M.G., Liu, C., Rosakis, A.J., Haberman, K.S., Bennett, J.G.
 “Mechanics Analysis and Simulation of a Graphite/Epoxy Aircraft-Engine Fan-Blade Impact Event,” 11th International Conference
 on Experimental Mechanics, Oxford, UK, August 1998 **(Invited Contribution)**
- 106 Rosakis, A.J.
 “Dynamic Shear-Dominated Intersonic and Supersonic Crack Growth in Bimaterials and Layered Systems,” MIT Mechanical
 Engineering Colloquium, Department of Mechanical Engineering, Massachusetts Institute of Technology, Cambridge, MA,
 September 18, 1998 **(Invited Contribution)**
- 107 Rosakis, A.J., Samudrala, O., Coker, D.
 “Dynamic Shear-Dominated, Intersonic Crack Growth in Bimaterial and Layered Systems,” Prager Medal Symposium in honor of
 Prof. R.J. Willis, 35th Annual Tech. Mtg of SES, Washington State Univ., Pullman, WA, Sep 27-30, 1998 **(Invited Contribution)**
- 108 Rosakis, A.J., Samudrala, O.
 “Supersonic Crack Growth Along Interfaces,” ASME WAM International Mechanical Engineering Congress & Exposition,
 Anaheim, CA, November 15-20, 1998 **(Invited Contribution)**
- 109 Rosakis, A.J., Coker, D.
 “Intersonic Crack Growth in Unidirectional Composites,” ASME WAM International Mechanical Engineering Congress &
 Exposition, Anaheim, CA, November 15-20, 1998 **(Invited Contribution)**
- 110 Zehnder, A.T., Rosakis, A.J., Ravichandran, G
 “An Infrared High Speed Camera System for the Visualization and Measurement of Transient Temperature Fields Resulting During
 the Dynamic Deformation and Failure of Materials, ASME WAM International Mechanical Engineering Congress & Exposition,
 Anaheim, CA, November 15-20, 1998 **(Invited Contribution)**
- 111 Owen, D.M., Rosakis, A.J.
 “Variation of Dynamic Crack Initiation Fracture Toughness with Loading Rates,” ASME WAM International Mechanical
 Engineering Congress & Exposition, Anaheim, CA, November 15-20, 1998 **(Invited Contribution)**
- 112 Rosakis, A.J., Johnson, W.L.
 “Dynamic Failure Mechanisms in Beryllium Bearing Bulk Metallic Glasses,” Materials Research Society (MRS) 1998 Fall
 Meeting, Boston, MA, December 1998 **(Invited Contribution)**

- 113 Rosakis, A.J., Coker, D., Samudrala, O.
 “Shear-Dominated Interersonic Cracks Featuring Dynamic Crack Face Frictional Contact and Shear Shock Waves; Can Numerics Capture All This?,” ARO, NSF and ASCI Symposium on the “Validation and Verification of Computational Mechanics Codes (T. Belytschko, A. Needleman, M. Ortiz, P. Yarrington and M. Zikry, Org.), California Institute of Technology, Pasadena, CA, December 1998 **(Invited Contribution)**
- 114 Rosakis, A.J., Lee, H.
 “Deformation of Thin Structures in The Nonlinear Range: Full Field Observations and Simulations,” JPL Review, Jet Propulsion Laboratory, Pasadena, CA, March 25, 1999
- 115 Rosakis, A.J., Samudrala, O., Coker, D.
 “Interersonic Crack Growth Along a Bimaterial Interface,” Session on Materials Behavior: Experiments and Models, SEM Annual Conference, Cincinnati, OH, June 7-9, 1999 **(Invited Contribution)**
- 116 Rosakis, A.J., Tippur, H.V.
 “The Optical Technique of Coherent Gradient Sensing in Experimental Mechanics: An Overview,” Symposium on “Recent Advances in Experimental Mechanics” in honor of Professor D. Post, ASME Mechanics and Materials Conference, Virginia Polytechnic Institute and State University, Blacksburg, VA, June 27-30, 1999 **(Invited Contribution)**
- 117 Rosakis, A.J., Samudrala, O.
 “Dynamic Shear-Dominated Interersonic & Supersonic Crack Growth in Bimaterials and Layered Systems,” Symposium on “Experiments in Fracture Mech.” in honor of Professor C.W. Smith, ASME Mech. VA, June 27-30, 1999 **(Invited Contribution)**
- 118 Rosakis, A.J., Samudrala, O., Coker, D.
 “Cracks Faster than the Shear Wave Speed,” Symposium on “Stresses and Fracture in Adhesive Bonds” in honor of Professor Max Williams, ASME Mechanics and Materials Conference, Virginia Polytechnic Institute and State University, Blacksburg, VA, June 27-30, 1999 **(Invited Contribution)**
- 119 Coker, D., Rosakis, A.J., Huang, Y.Y.
 “Subsonic and Interersonic Dynamic Crack Growth in Unidirectional Composites,” Symposium on “Shear Banding and Dynamic Failure” in honor of Professor T.W. Wright, ASME Mechanics and Materials Conference, Virginia Polytechnic Institute and State University, Blacksburg, VA, June 27-30, 1999 **(Invited Contribution)**
- 120 Guduru, P.R., Zehnder, A.T., Rosakis, A.J., Ravichandran, G.
 “An Infrared High Speed Camera System for the Visualization and Measurement of Transient Temperature Fields Resulting During the Dynamic Deformation and Failure of Materials,” Symposium on “Shear Banding and Dynamic Failure” in honor of Professor T.W. Wright, ASME Mechanics and Materials Conference, Virginia Polytechnic Institute and State University, Blacksburg, VA, June 27-30, 1999 **(Invited Contribution)**
- 121 Huang, Y., Wang, W., Liu, C, Rosakis, A.J.
 “Analysis of Interersonic Crack Growth in Unidirectional Fiber-Reinforced Composites,” Symposium on “Recent Developments in Anisotropic Elasticity,” ASME Mechanics and Materials Conference, Virginia Polytechnic Institute and State University, Blacksburg, VA, June 27-30, 1999 **(Invited Contribution)**
- 122 Gao, H., Huang, Y., Gumbsch, P., Rosakis, A.J.
 “On Radiation-Free Transonic Motion of Cracks and Dislocations in Anisotropic Elastic Solids,” Symposium on “Recent Developments in Anisotropic Elasticity,” ASME Mechanics and Materials Conference, Virginia Polytechnic Institute and State University, Blacksburg, VA, June 27-30, 1999 **(Invited Contribution)**
- 123 Hodowany, J., Ravichandran, G., Rosakis, A.J., Rosakis, P.
 “On the Partition of Plastic Work into Heat and Stored Work: A Kolsky Bar Approach,” Sym. “On Experimental Investigation of the Behavior of Materials at High Strain Rates ‘Kolsky Bar Fifty Years Later’” in memory of the late Professor H. Kolsky, ASME Mech. and Mat. Conference, Virginia Polytechnic Inst. and State Univ., Blacksburg, VA, June 27-30, 1999 **(Invited Contribution)**
- 124 Coker, D., Rosakis, A.J., Huang, Y.Y.
 “Subsonic and Interersonic Dynamic Crack Growth in Unidirectional Composites,” Session on “Composites for Marine Structures,” 12th International Conference on Composite Materials (ICCM12), Paris, France, July 5-9, 1999 **(Invited Contribution)**
- 125 Rosakis, A.J., Samudrala, O., Coker, D., Huang, Y.Y.
 “Cracks Faster than the Shear Wave Speed,” Symposium on “Dynamic Fracture,” Society of Engineering Science Annual Meeting (SES99), University of Texas at Austin, Austin, TX, October 25-27, 1999 **(Invited Contribution)**
- 126 Rosakis, A.J., Samudrala, O, Huang, Y.Y.
 “Interersonic Crack Growth Along Bimaterial Interfaces,” Symposium on “Interfacial Fracture,” honoring Professor K.L. Johnson, Society of Engineering Science Annual Mtg (SES99), Univ. of Texas at Austin, Austin, TX, Oct. 25-27, 1999 **(Invited Contribution)**
- 127 Rosakis, A.J., Coker, D., Yu, C., Ortiz, M.
 “Subsonic and Interersonic Dynamic Crack Growth in Unidirectional Composites,” Symposium on “Mechanics of Composite Materials and Composite Structures,” Society of Engineering Science Annual Meeting (SES99), University of Texas at Austin, Austin, TX, October 25-27, 1999 **(Invited Contribution)**
- 128 Rosakis, A.J., Coker, D., Huang, Y.
 “Subsonic and Interersonic Crack Growth in Composites,” Symposium on “Thick Composites for Load Bearing Structures,” ASME-IMECE '99 Winter Meeting, Nashville, TN, November 14-19, 1999 **(Invited Contribution)**
- 129 Rosakis, A.J., Samudrala, O., Coker, D.
 “Shear Cracks Faster than the Shear Wave Speed,” Session on “Dynamic Fracturing of Rocks and Rock-Like Materials,” American Geophysical Union (AGU) 1999 Fall Meeting, San Francisco, CA, December 13-17, 1999 **(Invited Contribution)**
- 130 Rosakis, A.J.
 “Dynamic Cracks and Faults Faster Than the Shear Wave Speed: Are We Breaking the Speed Limit,” Session on “Dynamic Deformation and Fracture,” The American Physical Society (APS) March 2000 Meeting, Minneapolis, MN, March 20-24, 2000 **(Invited Contribution)**

- 131 Samudrala, O., Huang, Y.Y., Rosakis, A.J.
 “Analysis of Interersonic Shear Crack Growth Along a Weak Plane with a Rate Independent Cohesive Zone Model,” Session on
 “Dynamic Deformation and Fracture,” The American Physical Society (APS) March 2000 Meeting, Minneapolis, MN, March 20-
 24, 2000 **(Invited Contribution)**
- 132 Rosakis, A.J., Lee, H.
 “Nonlinear Deformations & Reliability of Membrane, Thin Film & Line Structures,” JPL Review, JPL, Pasadena, CA, March 2000
- 133 Rosakis, A.J.
 “Interersonic Shear Failure of Heterogeneous Materials and Composites,” 20th Southeastern Theoretical and Applied Mechanics
 Conference (SECTAMXX), Pine Mountain, GA, April 16-18, 2000 **(Keynote Address)**
- 134 Rosakis, A.J., Guduru, P.R., Ravichandran, G.
 “An Infrared High Speed Camera System for the Visualization and Measurement of Transient Temperature Fields Resulting During
 the Dynamic Deformation and Failure of Materials,” Session on “Dynamic and High Strain Rate Phenomenon,” 20th Southeastern
 Theoretical & Applied Mechanics Conf.(SECTAMXX), Pine Mountain, GA, Apr.16-18, 2000 **(Invited Contribution)**
- 135 Boyd, D.A., Gallivan, M. A., Tripathi, A.B., Rosakis, A. J., Gowin, D. G., Atwater, H.A.,
 “Real-time, In Situ Curvature Measurement During Growth of Epitaxial YBCO Films on MgO”, MRS Spring Meeting, Session 12:
 New Methods of Vapor Deposition II, April 24, 2000
- 136 Rosakis, A.J.
 “High-Speed Experimental Diagnostics: Their Role in Analyzing Dynamic Failure Mechanisms in Energy Absorbing Heterogenous
 Materials and Structures,” Army Research Office (ARO) Workshop on Advanced Heterogeneous Systems, UCLA, Los Angeles,
 CA, June 27-28, 2000 **(Invited Contribution)**
- 137 Lee, H., Rosakis, A.J., Freund, L.B, Kolawa, E.
 “Optical Measurements of Curvatures of Film-Substrate Systems in the Nonlinear Deformations Range,” Willis Symposium, 20th
 International Congress of Theoretical and Applied Mechanics (ICTAM 2000), Chicago, IL, Sept. 2, 2000 **(Invited Contribution)**
- 138 Rosakis, A.J., Semenski, D.
 “Dynamic Experimental Analysis of the Cracks in Light-Core Sandwich Material,” 3rd International Congress of Croatian Society of
 Mechanics, Cavtat - Dubrovnik, Croatia, September 28-30, 2000 **(Invited Contribution)**
- 139 Semenski, D., Rosakis, A.J.
 “Dynamic Crack Initiation and Growth in Light-Core Sandwich Composite Materials,” 17th Danubia-Adria Symposium on
 Experimental Methods in Solid Mechanics, Prague, Czech Republic, October 11-14, 2000 **(Invited Contribution)**
- 140 Rosakis, A.J., Huang, Y.Y., Samudrala, O.
 “Interersonic Shear Crack Growth Along Weak Planes: Experiments and Slip Rate Weakening Cohesive Zone Models,” William
 Prager Medal Symposium honoring L.B. Freund, “Dynamic Failure of Materials” Session, 37th Annual Technical Meeting for the
 Society of Engineering Science (SES 2000), Univ. of South Carolina, Columbia, SC, October 23-25, 2000 **(Invited Contribution)**
- 141 Li, S., Liu, W.-K., Rosakis, A.J., Guduru, P.R.
 “On the Micro-Structure of Adiabatic Shear Bands,” William Prager Medal Symposium honoring L.B. Freund, “Dynamic Failure of
 Materials” Session, 37th Annual Technical Meeting for the Society of Engineering Science (SES 2000), University of South
 Carolina, Columbia, SC, October 23-25, 2000 **(Invited Contribution)**
- 142 Lee, H., Rosakis, A.J., Freund, L.B.
 “Full Field Optical Measurement of Curvatures in Ultra-Thin Film Substrate Systems in the Range of Geometrically Nonlinear
 Deformations,” William Prager Medal Symposium honoring L.B. Freund, “Mechanics of Thin Films” Session, 37th Annual Tech.
 Mtg. for the Soc. of Engrg. Sci. (SES 2000), Univ. of South Carolina, Columbia, SC, October 23-25, 2000 **(Invited Contribution)**
- 143 Coker, D., Rosakis, A.J.
 “Dynamic Crack Initiation and Unstable Crack Growth in Unidirectional Graphite-Epoxy Composite Materials,” Session on
 “Structural Properties of Advanced, Novel Composites,” 2000 International Mechanical Engineering Congress and Exposition of the
 American Society of Mechanical Engineers (ASME-IMECE 2000), Orlando, FL, Nov. 5-10, 2000 **(Invited Contribution)**
- 144 Rosakis, A.J., Ravichandran, G., Guduru, P.R., Zehnder, A.T.
 “An Infrared High Speed Camera System for the Visualization and Measurement of Transient Temperature Fields Resulting During
 the Dynamic Deformation and Failure of Materials,” Session on “Recent Advances in Dynamic Behavior of Materials,” 2000
 International Mechanical Engineering Congress and Exposition of the American Society of Mechanical Engineers (ASME-IMECE
 2000), Orlando, FL, November 5-10, 2000 **(Invited Contribution)**
- 145 Rosakis, A.J., Coker, D., Yu, C., Ortiz, M.
 “Subsonic and Interersonic Failure of Composites: High Speed Optical and Thermographic Measurements and Numerical
 Simulations,” Session on “Dyn. Failure in Composite Materials and Structures,” 2000 Int’l Mechanical Engineering Congress and
 Exposition of the American Soc. of Mech.Engineers (ASME-IMECE 2000), Orlando, FL, Nov.5-10, 2000 **(Invited Contribution)**
- 146 Xu, L., Rosakis, A.J., Yu, C., Ortiz, M.
 “Real Time Experimental and Computational Investigation of Dynamic Failure Mode Selection in Sandwich Structures,” Session on
 “Mechanics of Sandwich Structures,” 2000 International Mechanical Engineering Congress and Exposition of the American Society
 of Mechanical Engineers (ASME-IMECE 2000), Orlando, FL, November 5-10, 2000 **(Invited Contribution)**
- 147 Rosakis, A.J., Samudrala, O
 “Dynamic Shear-Dominated Interersonic and Supersonic Ruptures in Bimaterial Interfaces,” Session on “Dynamic Rupture of Rocks
 and Other Brittle Materials,” Amer. Geo.Union (AGU) 2000 Fall Mtg., San Francisco, CA, Dec.15-19, 2000 **(Invited Contribution)**
- 148 Rosakis, A.J., Ravichandran, G., Guduru, P.R
 “High Speed IR Observations of Transient High Temperature Vortical Microstructures in Solids During Adiabatic Shear Banding,”
 Materials Research Society (MRS) 2001 Spring Meeting, San Francisco, CA, April 16-20, 2001 **(Invited Contribution)**
- 149 Rosakis, A.J.
 “Interersonic Shear Crack Growth Along Weak Paths,” 2001 Mechanics and Materials Conference, University of California, San
 Diego, San Diego, CA, June 27-29, 2001 **(Invited Contribution)**

- 150 Rosakis, A.J., Ravichandran, G., Guduru, P.R.
 “High Speed, Two Dimensional, Infrared Observations of Transient Temperature Vortical Microstructures in Solids During Adiabatic Shear Banding,” 2001 Mechanics and Materials Conference, University of California, San Diego, San Diego, CA, June 27-29, 2001 **(Invited Contribution)**
- 151 Rosakis, A.J., Xu, L.R.
 “Dynamic Fracture in Multi-Layered Materials Subjected to Low-Speed Impact,” 2001 Mechanics and Materials Conference, University of California, San Diego, San Diego, CA, June 27-29, 2001 **(Invited Contribution)**
- 152 Xu, L.R., Rosakis, A.J.
 “Dynamic Failure Characteristics in Sandwich Structures: Basic Failure Modes Selection in Heterogeneous Three-Layer Systems,” 2001 Mechanics and Materials Conference, Univ. of California, San Diego, San Diego, CA, Jun 29, 2001 **(Invited Contribution)**
- 153 Rosakis, A.J.
 “Subsonic and Intersonic Shear Dominated Fracture at Interfaces,” Gordon Research Conference - Materials Processes Far From Equilibrium, Meriden, NH, July 1-6, 2001 **(Invited Contribution)**
- 154 Xu, L.R., Rosakis, A.J.
 “Sequence and Nature of Matrix Cracking and Delamination in Composite and Sandwich Structures Subjected to Low-Speed Impact,” 16th Annual Technical Conference of the American Society for Composites, Blacksburg, VA, September 9-12, 2001
- 155 Yu, C., Coker, D., Ortiz, M., Pandolfi, A., Rosakis A.J.
 “3D Modeling of Intersonic Crack Growth in Unidirectional Composite Plates,” 2nd International Conference on Fracture and Damage Mechanics, Politecnico di Milano, Italy, September 17-21, 2001
- 156 Liu, C., Rosakis, A.J., Stout, M.G.
 “Dynamic Fracture Toughness of a Unidirectional Graphite/Epoxy Composite,” Symposium on “Dynamic Effects in Composite Structures,” 2001 International Mechanical Engineering Congress and Exposition of the American Society of Mechanical Engineers (ASME-IMECE 2001), New York, NY, November 11-16, 2001 **(Invited Contribution)**
- 157 Needleman, A., Rosakis, A.J.
 “Dynamic Crack Growth Along Interfaces,” 10th Int’l Conf. on Frac.(ICF-10), Honolulu, HI, Dec. 3-7, 2001 **(Invited Contribution)**
- 158 Rosakis, A.J.
 “Intersonic Shear Cracks and Fault Ruptures,” École Normale Supérieure, Paris, France, April 2002 **(Invited Contribution)**
- 159 Rosakis, A.J.
 “Intersonic Decohesion of Bimaterials and Composites,” École Polytechnique, Paris, France, April 2002 **(Invited Contribution)**
- 160 Xu, L.R., Rosakis, A.J.
 “Impact Damage Visualization of Composite/Sandwich Structures Using High-Speed Optical Diagnostics,” Session on “Structures, Structural Dynamics, and Materials,” AIAA 2002 Conference, Denver, CO, April 2002
- 161 Xu, L.R., Rosakis, A.J.
 “Influence of Interfacial Mechanical Properties on the Impact Behaviors of Multi-Layered Materials,” Session on “Structures, Structural Dynamics, and Materials,” AIAA 2002 Conference, Denver, CO, April 2002
- 162 Xu, L.R., Rosakis, A.J.
 “Visualization and Evaluation of Dynamic Failure Process in Layered /Composite Materials,” 2002 SEM Annual Conference on Experimental Mechanics, Milwaukee, WI, June 10-12, 2002
- 163 Xu, L.R., Samudrala, O., Rosakis, A.J.
 “Measurements of Interfacial Mechanical Properties With the Aid of Two Optical Techniques,” 2002 SEM Annual Conference on Experimental Mechanics, Milwaukee, WI, June 10-12, 2002
- 164 Rosakis, A.J.
 “Intersonic Shear Rupture Along Weak Planes: From Earthquake Rupture to the Rupture of Atomic Planes,” Symposium on “Material Failure at High Strain Rates,” 14th US National Congress of Applied Mechanics, Virginia Polytechnic Institute, Blacksburg, VA, June 23-28, 2002 **(Keynote Address)**
- 165 Rosakis, A.J., Ravichandran, G., Guduru, P.R.
 “High Speed, Two-Dimensional, Infrared Observations of Transient Temperature Vortical Microstructures in Solids During Adiabatic Shear Banding,” Sym. on “Research and Education in Experimental Mechanics” honoring Professor J.W. Dally, 14th US National Congress of Applied Mechanics, Virginia Polytechnic Institute, Blacksburg, VA, Jun 23-28, 2002 **(Invited Contribution)**
- 166 Rosakis, A.J., Yu, C., Ortiz, M., Coker, D., Pandolfi, A.
 “Experimental and Numerical Investigation of Shear-Dominated Intersonic Crack Growth and Friction in Unidirectional Composites,” Symposium on “Recent Advances in Experimental Mechanics” honoring Professor I.M. Daniel, 14th US National Congress of Applied Mechanics, Virginia Polytechnic Institute, Blacksburg, VA, June 23-28, 2002 **(Invited Contribution)**
- 167 Rosakis, A.J., Huang, Y., Xu, L.R.
 “Dynamic Fracture in Multi-Layered Materials Subjected to Low-Speed Impact,” Symposium on “Topics in Mechanics of Materials” honoring Professor W.G. Knauss, 14th US National Congress of Applied Mechanics, Virginia Polytechnic Institute, Blacksburg, VA, June 23-28, 2002 **(Invited Contribution)**,
- 168 Vardoulakis, I., Exadaktylos, G., Kourkoulis, S., Stravropoulou, M., Rosakis, A.J.
 “Mechanical Behavior of Dionysos-Pentelikon Marble,” 3rd Euroconference on the Mathematical Foundations of Geomechanics, Horton, Greece, July 2002
- 169 Rosakis, A.J.
 “Intersonic Ruptures and the Story of the Square Root of Two Times the S-Wave Speed,” Workshop on Friction, Fracture, and Earthquake Physics, Keck Symposium, Kavli Institute for Theoretical Physics, University of California, Santa Barbara, July 18-19, 2002 **(Invited Contribution)**
- 170 Rosakis, A.J.
 “Laboratory Observations of Intersonic Fault Rupture,” 22nd Course of the International School of Geophysics, ERMES – Earthquake Mechanics, Earth Structure, and Related Problems Conference, Ettore Majorana Foundation and Centre for Scientific Culture, Erice, Trapani, Sicily, August 1-8, 2002 **(Invited Contribution)**

- 171 Rosakis, A.J.
 “Intersonic Decohesion Along Weak Planes: Experiments and Theory,” 14th European Conference on Fracture (ECF14), Fracture Mechanics Beyond 2000, Cracow, Poland, September 8-13, 2002 (**Keynote Address**)
- 172 Yu, C., Ortiz, M., A.J. Rosakis
 “3-D Modelling of Impact Failure in Sandwich Structures,” 3rd ESIS TC4 Conf., Les Diablerets, Switzerland, Sept. 13-15, 2002
- 173 Rosakis, A.J.
 “Intersonic Ruptures and the Story of the Square Root of Two Times the S-Wave Speed,” Symposium on Dynamic Failure and Thin Film Mechanics honoring Professor L.B. Freund of Brown University on the occasion of his 60th Birthday, California Institute of Technology, Pasadena, CA, January 16-18, 2003
- 174 Xu, L.R., Rosakis, A.J.
 “Impact-Induced Failure Events in Heterogeneous Layered Materials,” Symposium on Dynamic Failure, Society for Experimental Mechanics (SEM) 2003 Conference, Charlotte, NC, June 2-4, 2003 (**Invited Contribution**)
- 175 Rosakis, A.J., Huang, Y.Y.
 “Intersonic Ruptures and the Story of the Square Root of Two Times the S-Wave Speed,” Symposium on Recent Advances in Dynamic Failure and Fracture Studies – Dynamic Interfacial Fracture, Society for Experimental Mechanics (SEM) 2003 Conference, Charlotte, NC, June 2-4, 2003 (**Invited Contribution**)
- 176 Xia, K., Rosakis, A.J., Kanamori, H.
 “Laboratory Studies of Earthquake Fault Rupture,” Symposium on Impact Behavior of Engineering Materials II, Society for Experimental Mechanics (SEM) 2003 Conference and Exposition, Charlotte, NC, June 2-4, 2003 (**Invited Contribution**)
- 177 Rosakis, A.J., Coker, D., Yu, C., Ortiz, M.
 “Experimental and Numerical Investigation of Shear-Dominated Intersonic Crack Growth and Friction in Unidirectional Composites,” Symposium on Dynamic Failure and Fracture of Interfaces, Interphases, and Layered Media I, Society for Experimental Mechanics (SEM) 2003 Conference, Charlotte, NC, June 2-4, 2003 (**Invited Contribution**)
- 178 Rousseau, C.-E., Rosakis, A.J.
 “Effect of Fault Bends on the Growth of Dynamic Shear Ruptures,” Sym.on Dynamic Failure and Fracture of Interfaces, Interphases, and Layered Media I, Soc. for Experimental Mech.(SEM) 2003 Conference, Charlotte, NC, June 2-4, 2003 (**Invited Contribution**)
- 179 Xu, L.R., Huang, Y.Y., Rosakis, A.J.
 “Dynamic Failure Mode Transitions at Weak Interfaces in Homogeneous Materials,” Sym. on Dynamic Failure & Fracture of Interfaces, Interphases, & Layered Media II, Soc.for Experimental Mech. Conf., Charlotte, NC, Jun 4, 2003 (**Invited Contribution**)
- 180 Coker, D., Rosakis, A.J., Needleman, A.
 “Dynamic Crack Growth Along a Polymer Composite-Homalite Interface,” Sym.on Dynamic Failure & Fracture of Interfaces, Interphases, & Layered Media II, Soc.for Experimental Mech. (SEM) Conf., Charlotte, NC, Jun 2-4, 2003 (**Invited Contribution**)
- 181 Xu, L.R., Rosakis, A.J.
 “Real-Time Failure Visualization of Composite/Sandwich Structures Subjected to Low-Speed Impact,” Symposium on International Conference on Composite Materials (ICCM-14), San Diego, CA, July 14-18, 2003
- 182 Rosakis, A.J., Rousseau, C.-E.
 “Influence of Fault Bends and Forks on the Growth of Dynamic Shear Ruptures,” Ringberg Workshop on Dynamic Fracture, Munich, Germany, July 13-17, 2003 (**Invited Contribution**)
- 183 Needleman, A., Coker, D., Rosakis, A.J.
 “Fast Crack Growth Along Interfaces,” International Symposium on the Recent Developments in the Modeling of Rupture in Solids, FOZ do IGUAÇU, Brazil, August 4-7, 2003
- 184 Rosakis, A.J.
 “Supershear Fault Ruptures and the Story of the Square Root of Two Times the S-Wave Speed,” Seismology Seminar, Department of Earth and Space Sciences, UCLA, Los Angeles, CA, October 8, 2003 (**Invited Contribution**)
- 185 Rosakis, A.J.
 “Intersonic Fault Ruptures and the Story of the Square Root of Two Times the S-Wave Speed,” Bell Memorial Lecture in Continuum Mechanics, The Johns Hopkins University, Baltimore, MD, November 6, 2003 (**Honor Lecture**)
- 186 Rosakis, A.J.
 “Laboratory Earthquakes: Real Time Observations of the Sub-Rayleigh to Supershear Transition in Frictional Interfaces,” 2003 Int. Mech. Eng. Congress & Exposition of the Amer. Soc. of Mech. Eng. (ASME-IMECE 2003), Wash., DC, November 5-21, 2003
- 187 Xu, L.R., Rosakis, A.J.
 “Dynamic Response and Failure in Heterogeneous Layered Materials with Initial Defects,” 2003 Int’l Mechanical Engrg. Congress and Exposition of the American Society of Mechanical Engineers (ASME-IMECE 2003), Washington, DC, Nov. 15-21, 2003
- 188 Xu, L.R., Huang, Y.Y., Rosakis, A.J.
 “Observations and Predictions of Dynamic Crack Deflection and Penetration at Micro-Scale Interfaces,” 2003 International Mechanical Engineering Congress and Exposition of the American Society of Mechanical Engineers (ASME-IMECE 2003), Washington, DC, November 15-21, 2003 (**Invited Contribution**)
- 189 Rosakis, A.J., Kanamori, H., Xia, K
 “Laboratory Earthquakes: Real Time Observations of the Sub-Rayleigh to Supershear Transition in Frictional Interfaces,” American Geophysical Union (AGU) 2003 Fall Meeting, San Francisco, CA, December 8-12, 2003
- 190 Rosakis, A. J.
 “Laboratory Earthquakes: Part I: Frictional Earthquake Rupture, Part II: Effects of Fault Bends on the Growth of Dynamic Shear Rupture,” Univ. of Southern California, Earthquake Physics Seminar, Los Angeles, CA, April 20, 2004 (**Invited Contribution**)
- 191 Chalivendra, V. B., Hong, S., Rosakis, A.J.
 “Interactions of Dynamic cracks with Inclined Interfaces”, ASCI Research Review, Caltech, CA May 12-1, 2004
- 192 Rosakis, A. J.
 “Laboratory Earthquakes: (1) The Sub-Rayleigh to intersonic transition (2) The influence of fault bends on rupture growth”, Distinguished Speaker Seminar, Univ. of California at Riverside, Bourns College of Engineering, May 19, 2004 (**Honor Lecture**)

- 193 Rosakis, A. J., Xia, K., Kanamori, H.
 “Laboratory Earthquakes: The Sub-Rayleigh to Inter-sonic Transition, SIAM Conference on Mathematical Aspects of Materials Science, Los Angeles, CA May 23-26, 2004 **(Invited Lecture)**
- 194 Lykotrafitis, G., Rosakis, A.J.
 “Dynamic Rupture of Frictionally Held Incoherent Interfaces under Dynamic Shear Loading”, 2004 SEM X International Congress and Exposition on Experimental and Applied Mechanics, Costa Mesa, CA June 7-10, 2004 **(Invited Contribution)**
- 195 Park, T-S, Brown, M.A., Rosakis, A. J., Ustundag, E., Tamura, N
 “Validating CGS Interferometry-based Stress Measurements: A Comparison with X-ray Microdiffraction” 2004 SEM X International Congress and Exposition on Experimental and Applied Mechanics, The 1st International Symposium on Optical Methodologies and Metrologies for Microelectronics and Photonics, Costa Mesa, CA, June 7-10, 2004 **(Invited Contribution)**
- 196 Xia, K., Rosakis, A. J., Kanamori, H.,
 “Spontaneous rupturing along a frictional interface between similar and dissimilar materials”, 2004 SEM X International Congress and Exposition on Experimental and Applied Mechanics, Costa Mesa, CA, June 7-10, 2004
- 197 Rosakis, A. J., Park, T-S., Suresh, S.,
 “CGS Interferometry as a Full-Field, Real-Time, and In-Situ Wafer Inspection and Reliability Tool”, 2004 SEM X Int’l Congress and Exposition on Experimental and Applied Mechanics, Costa Mesa, CA June 7-10, 2004 **(Invited Contribution)**
- 198 Chalivendra, V. B., Rosakis, A. J., Arias, I., Ortiz, M
 “Dynamic Photoelastic Validation of Large Scale Fracture and Fragmentation Simulations”, 2004 SEM X International Congress and Exposition on Experimental and Applied Mechanics, Costa Mesa, CA, June 7-10, 2004
- 199 Rosakis, A.J.
 “Inter-sonic Fault Ruptures and the Story of the Square Root of Two Times the S-Wave Speed,” 7th National Congress on Mechanics-Hellenic Society for Theoretical & Applied Mechanics (HSTAM), Chania, Greece Jun 26, 2004 **(Keynote Address)**
- 200 Rosakis, A.J.
 “Dynamic Shear Fracture of Interfaces and Laboratory Earthquakes”, Boeing Distinguished Researcher & Scholar Seminar (B-DRASS), Huntington Beach, CA, September 9, 2004 **(Invited Contribution)**
- 201 Cox, B. N., Andrews, M., Massabo, R., Rosakis, A., Sridhar, N. and Yang, Q. D
 “Shear Lag And Beam Theories for Structures” Structural Integrity and Fracture International Conference (SIF’04), Brisbane, Australia, September 26-29 2004
- 202 Rosakis, A. J., Park, T-S., Suresh, S.
 “Explicit Expression for Stress in Multi-level Line Structures and in Connecting Vertical Vias”, 2nd International Conference on Multiscale Materials Modeling, University of California, Los Angeles, CA, October 11-15, 2004 **(Invited Contribution)**
- 203 Lykotrafitis, G., Rosakis, A. J.
 “Sliding of Frictionally Held Incoherent Interfaces under Dynamic Shear Loading”, Mechanics Symposia at the 2004 ASME/STLE International Joint Tribology Conference, Hilton Long Beach, Long Beach, CA, October 24-27, 2004 **(Invited Contribution)**
- 204 Xia, K., Rosakis, A.J., Kanamori, H.
 “Spontaneous rupturing along a frictional interface”, Special Symposia on Contact Mechanics, Symposia at the 2004 ASME/STLE International Joint Tribology Conference, Hilton Long Beach, Long Beach, CA, October 24-27, 2004 **(Invited Contribution)**
- 205 Rosakis, A. J.
 “The World through Shockwaves: Earthquakes in the Laboratory Demonstrating the Supershear Rupture Phenomenon and the Explosion at the Parthenon”, President’s Circle Dinner, Hall of Associates, Calif. Inst. of Tech., Pasadena, CA, Nov. 8, 2004
- 206 Brown, M.A., Park, T-S., Üstündag, E., Rosakis, A. J., Tamura, N.
 “Validating CGS Interferometry -based Stress Measurements: A Comparison with X-ray Microdiffraction”, 2004 ASME International Mechanical Engineering Congress and RD&D Expo, Anaheim, CA, November 13-19, 2004
- 207 Rosakis, A. J. Brown, M. A., Park, T.- S., Üstündag, E., and Huang, Y.Y.
 “Using CGS interferometry to measure stresses in discontinuous film/substrate systems: A comparison with, x-ray microdiffraction and theory, W.G. Knauss Symposium, California Institute of Technology, Pasadena, CA, November 16, 2004 **(Invited Contribution)**
- “Explicit Expression for Stress in Multi-level Line Structures and in Connecting Vertical Vias”, 2004 ASME International Mechanical Engineering Congress and RD&D Expo, Anaheim, CA, November 13-19, 2004
- 208 Park, T-S., Rosakis, A. J., Suresh, S.,
 “Curvature and Thermal Stress in Multi-level Metal Interconnect Structures”, 2004 ASME International Mechanical Engineering Congress and RD&D Expo, Anaheim, CA, November 13-19, 2004
- 209 Rosakis, A.J., Kanamori, H., Xia, K. and Rice, J.R.
 “Laboratory Earthquakes In Bimaterial Systems: On The Directionality of The Parkfield Earthquakes” American Geophysical Union (AGU) Fall Meeting 2004, San Francisco, CA, December 13-17, 2004
- 210 Chalivendra, V. B., Hong, S., Rosakis, A.J., Arias, I., Knap, J., Ortiz, M.
 “Interaction of dynamic cracks with inclined interfaces”, Proc. of Int. Conf. on Fracture (ICF11), Turin, Italy Mar. 20-25, 2005
- 211 Arias, I., Knap, J., Chalivendra, V.B., Hong, S., Ortiz, M., Rosakis, A.J.
 “Validation of Massively parallel simulations of dynamic fracture and fragmentation of brittle materials”, Proceeding of International Conference on Fracture (ICF11), Turin, Italy, March 20-25, 2005
- 212 Xia, K., Chalivendra, V.B., Rosakis, A.J.
 “Experimental studies of mixed mode spontaneous fractures expanding along inclined planes”, Proceedings of International Conference on Fracture (ICF11), Turin, Italy, March 20-25, 2005
- 213 Rosakis, A. J.
 “Laboratory Earthquakes”, Proceedings of International Conference on Fracture, Turin, Italy, March 20-25, 2005 **(Plenary Lecture)**
- 214 Lykotrafitis, G., Rosakis, A.J.
 “Rupture of frictionally held incoherent interfaces under dynamic shear loading”, 11th Int’l Conf. on Fracture, Turin, Italy Jun 2005
- 215 Coker, D., Lykotrafitis, G., Needleman, A., Rosakis, A. J.
 “Crack-like and pulse-like dynamic frictional sliding”, 11th International Conference on Fracture, Turin, Italy, June 2005

- 216 Rosakis, A. J.
 “Dynamic Fiber Sliding along Debonded, Frictional Interfaces”, for possible submission to The Proceedings of the Royal Society, April 22, 2005 Superieure, Paris, France, June 29, 2005 (**Invited Contribution**)
- 217 Rosakis, A. J.
 “Laboratory Earthquakes”, Murray Medal Lecture, Proceedings of 2005 SEM Annual Conference and Exposition on Experimental & Applied Mechanics, Portland June 7- 9, 2005
- 218 Chalivendra, V. B., Hong, S., Rosakis, A.J., Knap, J., Ortiz, M.
 “Experimental Validation of Dynamic Fragmentation Simulations”, Proceedings of 2005 SEM Annual Conference & Exposition on Experimental & Applied Mechanics, Portland June 7- 9, 2005
- 219 Hong, S., Chalivendra, V. B., Rosakis, A.J., Knap, J., Ortiz, M.
 “Experimental measurement of mixed-mode cohesive zone laws of adhesive bonds”, 2005 SEM Annual Conference & Exposition on Experimental & Applied Mechanics, Portland, OR, June 7- 9, 2005
- 220 Xia, K., Chalivendra, V.B., Rosakis, A.J.
 “Spontaneous Fractures in Similar and Dissimilar Materials”, 2005 SEM Annual Conference & Exposition on Experimental & Applied Mechanics, Portland, OR, June 7- 9, 2005
- 221 Lykotrafitis, G., Rosakis, A. J.
 “Identifying dynamic ruptures modes in frictional interfaces”, SEM Annual Conference and Exposition on Experimental and Applied Mechanics, Portland, OR June 2005
- 222 Rosakis, A. J.
 “Laboratory Earthquakes”, Lecture Series, Department of Terre-Atmosphere-Ocean, École Normale, France, July 2005
- 223 Rosakis, A. J.
 “Dynamic Earthquake Ruptures Meeting Fault Kinks or Forks”, Lecture Series, Institute de Physique du Globe, Paris, France July 2005 (**Invited Contribution**)
- 224 Rosakis, A. J.
 “Laboratory Earthquakes: Directionality and Supershear”, Kavli Institute for Theoretical Physics, Conference on Friction, Fracture and Earthquake Physics, Santa Barbara, CA, November 3, 2005 (**Invited Contribution**)
- 225 Rosakis, A.J., Lykotrafitis, G., Ravichandran, G.
 “Identifying Self-healing Pulses and Crack-like Ruptures in Experiments” American Geophysical Union (AGU) Fall Meeting 2005, San Francisco, CA, December 5-9, 2005
- 226 Lu, X., Lapusta, N., Rosakis, A.J.
 “Testing friction laws by comparing simulation results with experiments of spontaneous dynamic rupture”, American Geophysical Union (AGU05) Fall Meeting 2005, San Francisco, CA, December 2005
- 227 Rosakis, A. J.
 “Laboratory Earthquakes”, National University of Singapore, Civil Engineering Department, Singapore, January 16, 2006
- 228 Rosakis, A. J.
 “Laboratory Earthquakes”, 2nd MRS-S Conference on Advanced Materials, Symposium on Physics and Mechanics of Advanced Materials, Prof. C.F. Shih Symposium, Singapore, January 17, 2006 (**Co-Chair**)
- 229 Rosakis, A. J.
 “Generating Crustal Earthquakes in the Laboratory”, Inaugural Distinguished Scholar Lecture, Mechanical and Aerospace Engineering, Arizona State University, AZ (**Invited Lecture**) February 2006
- 230 Rosakis, A. J.
 “How Can Experimental Mechanics Contribute to Seismology?”, National Institute of Science and Caltech Seismology Laboratory, The Hiroo Kanamori Celebration Symposium, Pasadena, CA, February 23, 2006 (**Invited Contribution**)
- 231 Xia, K.W., Carl-Ernst Rousseau, A.J. Rosakis
 “Experimental investigations of spontaneous bimaterial interfacial fractures”, 2006 SEM Annual Conference and Exposition, St. Louis, Missouri, June 4-7, 2006
- 232 Chalivendra, V.B., Rosakis, A.J., Hong, S.
 “Deflection and Penetration Behavior of Propagating Mode-I Cracks towards Weak Inclined Interfaces, 2006 SEM Annual Conference and Exposition, St. Louis, Missouri, June 4-7, 2006
- 233 Lu, X., Lapusta, N., Rosakis, A.J.
 “Testing friction laws by modeling experiments of spontaneous dynamic rupture”, 7th World Congress on Computational Mechanics (*WCCM06*), Los Angeles, CA July 16-22, 2006
- 234 Lu, X., Lapusta, N., Rosakis, A.J.
 “Experimental study of different modes of spontaneous dynamic rupture on homogeneous interfaces”, Southern California Earthquake Center 2006 Annual Meeting (SCEC06), Palm Springs, CA, September 2006
- 235 Rosakis, A. J.
 “On-line Monitoring of Film Stress in Product Wafers through CGS Interferometry”, Symposium Honoring Professor Subra Suresh, the Acta Gold Medalist, held during the MRS 2006 Fall Meeting, Boston, MA, November 2006 (**Keynote Speaker**)
- 236 Rosakis, A. J.
 “Laboratory Earthquakes”, Lecture Mechanical Engineering Department, Columbia University School of Engineering and Applied Science, New York, NY Nov 2006
- 237 Rosakis, A.J., Lu, X., Lapusta, N.
 “Laboratory Observations of Crack-Like and Pulse-Like Ruptures”, EOS Trans. AGU, 87 (52), S52B-07, American Geophysical Union 2006 Fall Meeting, San Francisco, CA, December 2006
- 238 Lu, X., Lapusta, N., Rosakis, A.J.
 “Constraining friction laws by experimental observations and numerical simulations of various rupture modes”, EOS Trans. AGU, 87 (52), S33C-04. American Geophysical Union Fall Meeting 2006, San Francisco, CA, December 2006
- 239 Biegel, R.L., Sammis, C.G., Rosakis, A. J.
 The Effect of Off-Fault Damage on Earthquake Rupture Velocity: An Experimental Study, Eos Trans. AGU, 87(52), Fall Meeting Suppl. Abstract S33A-0229, 2006

- 240 Biegel, R.L., Sammis, C.G., Rosakis, A. J.
The Effect of Off-Fault Damage on Earthquake Rupture Velocity: An Experimental Study, SCEC Annual Mtg., Proceedings and Abstracts, Vol. 16, page 77, 2006
- 241 Rosakis, A. J.
“GALCIT’s New Involvement in Space”, Transforming Space Conference, the California Space Authority, Education and Workforce Panel, Los Angeles, CA, December 2006
- 242 Rosakis, A. J.
“Laboratory Earthquakes”, Distinguished Lecture, Mechanical Engineering Department Distinguished Lecture at Stony Brook University, Stony Brook, New York, January 2007 (**Honor Lecture**)
- 243 Rosakis, A. J.
“Identifying Self-healing Sliding Modes and Crack-like Rupture Modes in Dynamically Loaded Interfaces” 2007 Stewardship Science Academic alliances (SSAA) Program Symposium, National Nuclear Security Administration (NNSA), Carnegie Institution, Washington DC, February 5-7, 2007
- 244 Rosakis, A. J.
“Laboratory Earthquakes: Modes, Directionality, and Super Shear”, USGS Earthquake Hazards Team Seminar Series, U.S. Geological Survey, Menlo Park, CA, March 2007
- 245 Rosakis, A. J.
“Earthquake Rupture Modes as Revealed in the Laboratory”, The George R. Irwin Centennial Conference, University of Maryland College Park, MD, March 2007
- 246 Rosakis, A. J.
“Laboratory Earthquakes - Modes, Directionality and Super shear”, The Schaller Lecture, Department of Mechanical Science and Engineering, Univ. of Illinois at Urbana-Champaign, Urbana, IL, May 2007 (**Honor Lecture**)
- 247 Rosakis, A. J.
“Laboratory Earthquakes: Modes, Directionality, and Super Shear”, School of Earth Sciences, Department of Geophysics, Stanford University, San Jose, CA, May 2007
- 248 Rosakis, A. J.
“Laboratory Earthquakes: Modes, Directionality, and Super Shear”, McMat 2007, ASME Applied Mechanics and Materials Conference, University of Texas at Austin, June 2007 (**Plenary Contribution**)
- 249 Mello, M., Rosakis, A.J.
“Extension Of The Coherent Gradient Sensor (CGS) To The Combined Measurement Of In-Plane And Out-Of-Plane Displacement Field Gradients”, Society of Experimental Mechanics Meeting 2007, Springfield, MA, June 2007
- 250 Rosakis, A. J., Lu, X., Lapusta, N.
“Pulse and Crack-Like Ruptures in Experiments Mimicking Crustal Earthquakes” The Hellenic Society for Theoretical and Applied Mechanics, 8th HSTAM International Congress on Mechanics, Univ. of Patras, PATRAS – Greece, July 2007 (**Plenary Lecture**)
- 251 Lu, X., Lapusta, N., Rosakis, A.J.
“Pulse-like and Crack-like ruptures in experiments mimicking crustal earthquakes”, Southern California Earthquake Center Annual Meeting (SCEC07), Palm Springs, CA, 2007
- 252 Lu, X., Lapusta, N., Rosakis, A.J.
“Laboratory experiments and theoretical studies of rupture modes and supershear transition”, American Geophysical Union Fall Meeting (*AGU07*) 2007, San Francisco, CA, December 2007
- 253 Lu, X., Lapusta, N., Rosakis, A.J.
“Laboratory observations of crack-like and pulse-like ruptures”, ASME International Mechanical Engineering Congress & Exposition, 2007 (*IMECE07*), Seattle, Washington, 2007
- 254 Rosakis, A. J.
“GALCIT’s Structural Transformation: Re-Engaging JPL in Research and Teaching” Anne Rothenberg Seminar, March 2008
- 255 Rosakis, A.J.
“Intersonic Earthquakes: What laboratory earthquakes can teach us about real ones.” Oxford University Astor Museum Lecture Theatre, Oxford, May 2008 (**Honor Lecture**)
- 256 Rosakis, A.J.
“CGS Interferometry as a Full-Field Wafer Inspection and Film Stress Measurement Tool: Measurements in the Presence of Film thickness and Stress Discontinuities” Oxford University Department of Engineering, May 2008 (**Invited Contribution**)
- 257 Biegel, R., Bhat, H., Sammis, C., Rosakis, A.
“Rupture Directionality and Super-shear: Elastic Mismatch or Damage Induced Retardation?” SCEC Fault Zones Workshop, Oxnard, CA, June 2008
- 258 Lamberson, L., Rosakis, A., Adams, M.A.
“Dynamic Behavior Track Shock and High Pressure Response”, 2008 SEM XI International Congress & Exposition on Experimental and Applied Mech. Experimental Mech. Applied to Damage: Detection, Analysis & Mitigation, Orlando, FL, Jun 2008
- 259 Lamberson, L. Rosakis, A.J., Adams. M.
“Hypervelocity Impact In-Situ Damage Evolution”, SEM International Congress & Exposition, Orlando, FL, June 2008
- 260 Lapusta, N., Lu, X., Rosakis, A.J.
“Pulse-like and crack-like shear ruptures in earthquake models and laboratory experiments”, First American Academy of Mechanics Conference (First AAM08), New Orleans, LA, 2008
- 261 Rosakis, A.J., Lu, X., Lapusta, N.
“Pulse-like and Crack-like Rupture Modes in Laboratory Earthquakes”, ASME International Mechanical Engineering Congress and Exposition (IMECE08), Boston, MA, November 2008
- 262 Lu, X., Lapusta, N., Rosakis, A.J.
“Laboratory experiments and theoretical studies of rupture modes and supershear transition”, 22nd Int’l Congress of Theoretical and Applied Mech.(ICTAM2008), SM08 Geophysics and Geomechanics session, Univ. of Adelaide, Adelaide, Australia, August 2008

- 263 Lu, X., Lapusta, N., Rosakis, A.J.
 “Analysis of supershear transition regimes in rupture experiments: The effect of nucleation conditions and friction parameters”, So. Cal Earthquake Ctr. Annual Meeting (*SCEC08*), at the Hilton Palm Springs Resort in Palm Springs, CA, September 6-11, 2008
- 264 Lu, X., Lapusta, N., Rosakis, A.J.
 “Effect of prestress and nucleation procedure on rupture modes in laboratory earthquakes”, Southern California Earthquake Center Annual Meeting (*SCEC08*), at the Hilton Palm Springs Resort in Palm Springs, CA, September 6-11, 2008
- 265 Lamberson, L., Rosakis, A.J., Adams, M.
 “Hypervelocity Impact: Damage Mechanics and Material Response”, Society of Engineering Science 45th Annual Technical Meeting, Urbana-Champaign, IL, October 2008
- 266 Xiao, L., Lapusta, N., Rosakis, A.
 “Analysis of Supershear Transition Regimes in Rupture Experiments: Effect of Nucleation Conditions and Friction Parameters”, 2008 American Geophysical Union Fall Meeting (*AGU08*), San Francisco, CA, December 2008
- 267 Griffin, A., Rosakis, A., Pollard, D., Ko, C.
 “Tensile cracks: a new link between geological observations of faults and seismological models of earthquake dynamics”, American Geophysical Union Fall Meeting, San Francisco, CA, December 2008
- 268 Bhat, H. Sammis, C., Rosakis, A.
 “Numerical Model for the Effect of Off-Fault Damage on Dynamic Rupture”, 2008 American Geophysical Union Fall Meeting, San Francisco, CA, December 2008
- 269 Rosakis, A.
 “Inter-sonic Earthquakes: What laboratory earthquakes can teach us about real ones.”, Theoretical & Applied Mechanics (TAM) Colloquium, Northwestern University, Civil and Environmental Departments, Chicago IL, January 2009 (**Invited Lecture**)
- 270 Rosakis, A., Sammis, C., Bhat, H., Biegel, R.
 “Rupture Directionality and Super-shear: Elastic Mismatch or Damage Induced Retardation?” IUTAM Symposium: Dynamic Fracture and Fragmentation, Austin, TX, March 2009 (**Invited Lecture**)
- 271 Rosakis, A., Sammis, C., Bhat, H., Biegel, R.
 “Rupture Directionality and Super-shear: Elastic Mismatch or Damage Induced Retardation?”, SAA 2009 Seismological Society of America, Special Session – Supershear Earthquake Rupture Speeds, Monterey, CA, April 2009 (**Invited Contribution**)
- 272 Mello, M., Bhat, H.S., Rosakis, A.J., Kanamori, H.,
 “Experimental Investigation of Radiated Ground Motion Due to Supershear Earthquake Ruptures”, SAA 2009 Seismological Society of America, Special Session – Supershear Earthquake Rupture Speeds, Monterey, CA, April 2009 (**Invited Contribution**)
- 273 Rosakis, A., Sammis, C., Bhat, H., Biegel, R.
 “Rupture Directionality and Super-shear: Elastic Mismatch or Damage Induced Retardation?”, 2009 SEM Annual Conference and Exposition on Experimental and Applied Mechanics, Albuquerque, New Mexico, June 1-3, 2009 (**Invited Contribution**)
- 274 Lamberson, L., Eliasson, V., Rosakis, A.J.
 “Mechanics of Hypervelocity Impact Induced Damage”, SEM International Congress & Exposition, Albuquerque, NM, June 2009.
- 275 Rosakis, A.J., Mello, M., Bhat, H.S., Kanamori, H.
 “Experimental Investigation of Radiated Ground Motion Due to Supershear Earthquake Ruptures”, 2009 ASME International Mechanical Engineering Congress and Exposition, 2009 (IMECE09), Lake Buena Vista, Florida, 2009
- 276 Lamberson, L., Rosakis, A.J.,
 “Optical Investigations of Hypervelocity Impact Damage”, American Society of Mechanical Engineers International Congress & Exposition, Orlando, FL, November 2009. (*1st place - student paper*)
- 277 Eliasson, V., Rosakis, A.J., Dimotakis, P.E.,
 “Shock focusing in water and material effects”, ONR Solid Mechanics Review, University of Maryland, 2009
- 278 Rosakis, A.J., Feng, X., Huang, Y., Ngo, D.
 “CGS Interferometry Applied to the Study of Curvature and Film Stress Evolution in the Presence of Severe Non-uniformities of film thickness and Misfit Strain - Part I and Part II”, ASME International Mechanical Engineering Congress and Exposition, (IMECE09), Lake Buena Vista, Florida, 2009
- 279 Eliasson, V., Henshaw, W.D., Rosakis, A.J., Dimotakis, P.E.
 “Fluid-structure interaction of converging shocks in water”, APS Meeting, Minneapolis, Nov. 2009
- 280 Ngo, D, Huang Y., Rosakis, A.J., Griffith, W.A., Pollard, D.D.
 “Off-fault tensile cracks: A link between geological fault observations, experiments and earthquake rupture models”, 2009 American Geophysical Union Fall Meeting, San Francisco, CA, 2009
- 281 Sammis, C.G., Bhat, H.S., Rosakis, A. J.
 “A Micromechanical Model for the Generation of Off-Fault Damage by Earthquake Ruptures”, 2009 American Geophysical Union Fall Meeting, San Francisco, CA, 2009
- 282 Mello, M., Bhat, H.S., Kanamori, H., Rosakis, A. J.
 “Experimental Investigation of Radiated Ground Motion Due to Supershear Earthquake Ruptures”, 2009 American Geophysical Union Fall Meeting, San Francisco, CA, 2009
- 283 Rosakis, A. J.
 “Inter-sonic versus Sub Rayleigh Earthquakes: Unique Signatures of Radiated Ground Motion, International Conference on New Developments in Elasticity: The Legacy of Robert Hooke” Mathematical Institute, University of Oxford, United Kingdom, January 2010 (**Invited Lecture**)
- 284 Rosakis, A. J.
 “Inter-sonic Earthquakes : What Laboratory Earthquakes Teach us About Real Ones” Earnest C. Watson Lecture Series, California Institute of Technology, Beckman Auditorium, Pasadena, CA, February 2010 (**Honor Lecture**)

- 285 Rosakis, A. J.
 “Intersonic Earthquakes : What Laboratory Earthquakes Teach us About Real Ones” Joint Seminar, MAE Mechanical and Materials Engineering and Scripps Institution of Oceanography, University of California, San Diego, CA, March 2010 **(Invited Lecture)**
- 286 Rosakis, A. J.
 “Intersonic Earthquakes : What Laboratory Earthquakes Teach us About Real Ones” 2010 Japan Society of Mechanical Engineers/Materials and Mechanics Division Symposium for Young Researchers, California Institute of Technology, Pasadena, CA, March 2010 **(Invited Lecture)**
- 287 J. Mihaly, L. Lamberson, M. Adams, et al
 “A Low-Cost, Small Bore, Light-Gas Gun Facility”, 11th Hypervelocity Impact Symposium, Freiburg, Germany, April 2010
- 288 Lamberson, L., Rosakis, A.J.
 “Hypervelocity Impact Damage of Brittle Polymers”, École Polytechnique, Solid Mechanics Laboratory (LMS), Palaiseu, France, April 2010 **(Invited Talk)**
- 289 Lamberson, L., Eliasson, V., Rosakis, A.J.
 “In-situ Optical Investigations of Hypervelocity Impact Induced Dynamic Fracture”, Society of Experimental Mechanics (SEM) International Congress & Exposition, Indianapolis, IN, June 2010
- 290 Bhat, H. S., Rosakis, A. J., Sammis, C.G.
 “An Experimental and Theoretical Study of Asymmetric Earthquake Rupture Propagation Caused by Off-Fault Fracture Damage”, Annual Meeting of the Southern California Earthquake Center (SCEC), Palms Springs, CA., September 2010
- 291 Mello, M., Bhat, H. S., Rosakis, A. J., Kanamori, H.
 “Identifying the unique ground motion signatures of supershear earthquakes: Theory and experiments”. Annual Meeting of the Southern California Earthquake Center (SCEC), Palms Springs, CA., September 2010
- 292 Sammis, C. G., Bhat, H. S., Rosakis, A. J.
 “Micromechanical Damage Mechanics at High Loading Rates”, Monitoring Research Review, Orlando, Fl., September 2010
- 293 Sammis, C.G., Rosakis, A. J.
 “Off-Fault Tensile Cracks: A Link between Geological Fault observations, Lab Experiments and Dynamic Rupture Models”, GSA Abstracts with programs Vol. 42, No. 5, Session No. 173 Titled “Where Does Earthquake Physics Meet Earthquake Geology?”, 2010 GSA Denver Annual Meeting, Denver, CO, October 2010
- 294 Sammis, C.G., Rosakis, A. J.
 “An Experimental Study of the Effects of Fault Zone Structure on Earthquake Ruptures”, GSA Abstracts with programs Vol. 42, No. 5, Session No. 173 Titled “Where Does Earthquake Physics Meet Earthquake Geology?”, 2010 GSA Denver Annual Meeting, Denver, CO, October 2010
- 295 Rosakis, A. J.
 “Where have all the Rocket Scientists Gone?”, 2010 National Summit on the National Academy of Engineering (NAE) Grand Challenges, USC Viterbi School of Engineering , Los Angeles, CA., October 2010 **(Invited Talk)**
- 296 Rosakis, A. J.
 “Intersonic Earthquakes: What Laboratory Earthquakes Teach Us About Real Ones”, The Robert Henry Thurston Lecture, 2010 ASME International Mechanical Engineering Congress and Exposition, Vancouver Convention & Exposition Centre, Vancouver, British Columbia, November 2010 **(Honor Lecture)**
- 297 Bhat, H.S., Sammis, C.G., Rosakis, A.J.
 “An Experimental and Theoretical Study of Asymmetric Earthquake Rupture Propagation Caused by Off-Fault Fracture Damage ”, *Eos Trans.* 2010 American Geophysical Union Fall Mtg (AGU), Suppl.: pp. Abstract T33B-2241, San Francisco, CA, Dec 2010
- 298 Mello, M., Bhat, H., Krishnan, S., Rosakis, A.J., Kanamori, H.
 “Response of Building Structures to Scaled Laboratory Earthquake Ruptures ”, *Eos Trans.* 2010 American Geophysical Union Fall Meeting (AGU), Suppl.: pp. Abstract S43A-2049, San Francisco, CA, December 2010
- 299 Gabuchian, V., Rosakis, A.J., Lapusta, N., Oglesby, D.
 “Experimental Investigation of Thrust Faults in Homalite”, 2010 Amer. Geophysical Union Fall Mtg, San Francisco, CA, Dec. 2010
- 300 Oglesby, D., Lapusta, N., Gabuchian, V., Rosakis, A. J.
 “Numerical models of Thrust Earthquakes on Homalite Faults”, 2010 American Geophysical Union Fall Meeting, San Francisco, CA, December 2010
- 301 Bhat, H.S., Sammis, C.G., Mello, Michael, Rosakis, A.J.
 “Laboratory Earthquakes: new Insights into Earthquake Source Processes”, Institut de Physique du Globe, Paris, France, 2011
- 302 Rosakis, A.J., Mello, M. Bhat, H.S., Swaminathan, K., Kanamori, H.
 “Identifying the unique ground motion signatures of Supershear vs. Sub-Rayleigh earthquakes: Theory, experiments and Seismic risk”, Symposium on Mechanics in Geophysical and Materials Science, In honor of Professor James R. Rice, California Institute of Technology, January 2011 **(Invited Lecture)**
- 303 Mello, M., Rosakis, A.J., Bhat, H.S., Kanamori, H.
 “Identifying the unique ground motion signatures of Supershear vs. Sub-Rayleigh earthquakes: Theory and Experiments”, 2nd Annual James K. Knowles Lec. and Caltech Solid Mechanics Symposium, Calif. Institute of Tech., Jan 2011 **(Invited Lecture)**
- 304 Rosakis, A.J.
 “Identifying the unique ground motion signatures of Supershear Earthquakes: The One-Two Punch Effect on High-Rise Buildings”, The Mindlin Lecture, Department of Civil Engrg and Engineering Mech., Columbia Univ., N.Y., March 2011, **(Honor Lecture)**
- 305 Mello, M, Bhat, H.S, Rosakis, A.J., Kanamori, H.
 “Identifying the unique ground motion signatures of Supershear vs. Sub-Rayleigh earthquakes: Theory, experiments and Seismic risk”, Visiting Seminar, Department of Civil Engineering, Indian Institute of Science, Bangalore, India, March 2011
- 306 Rosakis, A.J.
 “Identifying the unique ground motion signatures of Supershear Earthquakes: The One-Two Punch Effect on High-Rise Buildings”, The Royal Astronomical Society, Earthquake Mechanics and Supershear Rupture Speeds, London, England, May 2011 **(Invited Lecture)**

- 307 Rosakis, A.J., Mello, M., Bhat, H.S., Krishnan, S., Kanamori, H.
 “Identifying the unique ground motion signatures of Supershear vs. Sub-Rayleigh Earthquakes: Theory, Experiments and Seismic Risk”, Sym. in honor of L. B. Freund, “Future Directions in Mech. Research”, Brown Univ., Providence, RI, Jun 2011 **(Invited Lecture)**
- 308 Rosakis, A. J.
 “Identifying the unique ground motion signatures of Supershear Earthquakes: The One-Two Punch Effect on High-Rise Buildings”, 48th Annual Technical Meeting of the Society of Engineering Science (SES), A.C. Eringen Medal, Northwestern University, October 2011 **(Honor Lecture)**
- 309 Bhat, H.S., Rosakis, A.J., Sammis, C. G.
 “The Micromechanics Of Brittle Failure At Very High Loading Rates” , 48th Annual Technical Meeting of the Society of Engineering Science (SES), A.C. Eringen Medal, Northwestern University, October 2011
- 310 Griffith, W. A., Rosakis, A. J., Prakash, V.
 The Character and Evolution of Fracture Systems in Crystalline Rocks, “Secondary fracture arrays and coseismic friction along faults in crystalline rocks”, American Geophysical Union, Fall Meeting 2011, San Francisco, CA, December 2011
- 311 Mello, M., Rosakis, A. J., Bhat, H. S., Bjornsson, A.B., Krishnan, S., Kanamori, H.
 Toward Seismic Rupture Models with Constraints from Experimental and Seismological Observations, “Identifying the unique ground motion signatures of super-shear earthquakes: The one-two punch effect on high-rise buildings”, American Geophysical Union, Fall Meeting 2011, San Francisco, CA, December 2011
- 312 Mihaly J. M., Adams M. A., and Rosakis, A. J.
 “High-Speed Imaging of Hypervelocity Impact Phenomena Using Laser Side-Lighting”, 62nd Annual Meeting of the Aeroballistic Range Association, Putin Bay, Ohio, 2011
- 313 Alexeenko, A., Kulakhmetov, M., Weaver, A., Slipchenko, M., Mihaly, J., Adams, M., Rosakis, A.J.,
 "Feasibility of Non-Equilibrium Hypersonic Flow Measurements in Small Particle Hypervelocity Impact Range", AIAA Paper 2012-0596, Proceedings of 50th AIAA Aerospace Sciences Meeting, Nashville, TN, January 9-12, 2012
- 314 Rosakis, A. J.
 “Identifying the unique ground motion signatures of super-shear earthquakes: The one-two punch effect on high-rise buildings”, University of California Davis – College of Engineering, College Distinguished Lecture, Davis, CA, Jan. 2012 **(Invited Lecture)**
- 315 Rubino V., Lapusta N., Rosakis A.J.
 “The feasibility of dynamic full-field earthquake from space: a laboratory study”, 3rd Annual James K. Knowles Lecture and Caltech Solid Mechanics Symposium, at the California Institute of Technology, Pasadena, CA, 2013. **(Invited Lecture)**
- 316 Rosakis, A. J.
 “Engineering in the Fight Against Mega-Earthquakes: Super-shear Earthquake Ruptures Flattening our Buildings”, ARCS Found (Achievement Rewards for College Scientists) ARCS Scholar Recognition Lec. , California Club, January 2012 **(Invited Lecture)**
- 317 Rosakis, A. J.
 “Identifying the unique ground motion signatures of super-shear earthquakes: The one-two punch effect on high-rise buildings”, UCLA Distinguished Lecture Series in Structural Engineering and Mechanics , February 2012 **(Invited Lecture)**
- 318 Rubino V., Lapusta N., Rosakis A.J.
 “Full-field earthquake measurements with the digital image correlation method”, Seismological Society of America, SSA Annual Meeting 17-19 April 2012, San Diego, CA
- 319 Rosakis, A. J.
 “Engineering in the Fight Against Mega-Earthquakes”, Caltech Alumni Association, Ruben H. Fleet Science Center, San Diego, CA., May 2012 **(Invited Lecture)**
- 320 Rosakis, A. J.
 “Identifying the unique ground motion signatures of super-shear earthquakes: The one-two punch effect on high-rise buildings”, Institut de Physique du Globe de Paris (IPGP) , Tectonique et mécanique de la lithosphère Sismologie Bureau IPGP Amphitheater, June 2012 **(Invited Lecture)**
- 321 Siriki, H., Lapusta, N., Rosakis, A.J., Krishnan, S., Bhat, H.S., Lu, X.
 “A Recursive Division Stochastic Source Algorithm with Insights from Laboratory Earthquakes for Strike-Slip Earthquakes”, 15th World Conference on Earthquake Engineering (15 WCEE), Lisbon, Portugal, September 2012
- 322 Mihaly, J. M., Rosakis, A.J., Adams, M.A., Tandy, J.D.
 “Imaging Ejecta and Debris Cloud Behavior Using Laser Side-Lighting”, Procedia Engineering, Proceedings of The 12th in the Hypervelocity Impact Symposium series, HVIS 2012 Baltimore, Maryland from September 2012
- 323 B. Li, L. Perotti, M. Adams, J. Mihaly, A.J. Rosakis, M. Stalzer, M. Ortiz;
 “Large Scale Optimal Transportation Meshfree (OTM) Simulations of Hypervelocity Impact”, The 12th in the Hypervelocity Impact Symposium series, HVIS 2012, Baltimore, Maryland from September 2012
- 324 Rubino, V, Lapusta N., Rosakis, A.J.,
 “Laboratory Earthquakes: Measuring surface displacement with high-speed digital image correlation”, 2012 SCEC Annual Meeting, Palm Springs, CA, September 2012
- 325 Rosakis, A. J.
 “Identifying the unique ground motion signatures of super-shear earthquakes: The one-two punch effect on high-rise buildings”, ETH, Zurich, Switzerland , Geophysics Colloquium in the Department of Earth Sciences, December 2012 **(Invited Lecture)**
- 326 Rubino V., Lapusta N., Rosakis A.J.
 “Laboratory earthquake measurements with the high-speed digital image correlation method and applications to supershear transition”, American Geophysical Union, AGU Fall Meeting, San Francisco, CA, December 2012
- 327 Lamberson, L., Rosakis, A. J.
 “Modified Charters Model for Single Wall Perforation”, Procedia Engineering, Proceedings of The 12th in the Hypervelocity Impact Symposium series, HVIS 2012 Baltimore, Maryland from September 2012

- 328 Li, B., Perotti, L., Adams, M., Mihaly, J., Rosakis, A. J., Stalzer, M., Ortiz, M.,
 “Large scale Optimal Transportation Meshfree (OTM) Simulations of Hypervelocity Impact”, *Procedia Engineering, Proceedings of
 The 12th in the Hypervelocity Impact Symposium series, HVIS 2012 Baltimore, Maryland from September 2012*
- 329 Gabuchian, V., Rosakis, A.J., Lapusta, N.
 “Interaction of Sub-Rayleigh and Super-shear Ruptures with a Free Surface: Experimental Study with Applications to Thrust Fault
 Rupture Dynamics” 4th Annual James K. Knowles Lecture and Caltech Solid Mechanics Symposium, at the California Institute of
 Technology, Pasadena, CA, 2013. **(Invited Lecture)**
- 330 Rosakis, A. J.
 “Identifying the unique ground motion signatures of super-shear earthquakes: The one-two punch effect on high-rise buildings”,
 The Nowinski Lecture, Univ. of Delaware, Newark, Delaware, Dept. of Mechanical Engineering, April 2013 **(Honor Lecture)**
- 331 Rubino, V, Lapusta, N., Rosakis, A.J.
 “Laboratory earthquake measurements with the high-speed digital image correlation method,” SEM 2013 Annual Conference &
 Exposition on Experimental and Applied Mechanics, Lombard, IL, June 2013.
- 332 Rosakis, A. J., Mello, M., Bhat, H., Kanamori, H.
 “Analogue Earthquakes: Reproducing the 2002, Mw7.9, Denali supershear earthquake in the laboratory”, *Knowledge for the Future,
 Joint Assembly Gothenburg, IAHS-IAPSO-IASPEI, Gothenburg, Sweden, July 2013*
- 333 Bhat, H.S., Rosakis, A.J.; Sammis, C.G.
 “A constitutive model accounting for dynamic fracture damage during earthquakes”, *Knowledge for the Future, Joint Assembly
 Gothenburg, IAHS-IAPSO-IASPEI, Gothenburg, Sweden, July 2013 (Invited Lecture)*
- 334 Mihaly, J.M., Sammis, C.G., Rosakis, A.J., Bhat, H.S.
 “P- and S-wave Generation by Rock Fracture: Numerical Models and Laboratory Experiments”, AFRL TIM Meeting, Albuquerque,
 NM, September 2013
- 335 Rubino, V, Lapusta, N., Rosakis A.J.,
 “Can supershear earthquakes occur under low overall levels of shear prestress?”, 2013 SCEC Annual Meeting, Palm Springs, CA,
 September 2013
- 336 Rubino, V, A.J. Rosakis and N. Lapusta,
 “Towards high-speed digital image correlation measurements of dynamic ruptures along frictional interfaces, 21st DYMAT
 Technical Meeting – High speed imaging for dynamic testing of materials and structures”, London, UK, November 2013
- 337 Rosakis, A. J., Mello, M., Bhat, H., Kanamori, H.
 “Analogue Earthquakes: Reproducing the 2002, Mw7.9, Denali supershear earthquake in the laboratory”, ASME 2013
 International Mechanical Engineering Congress and Exposition (IMECE), Drucker Medalist Symposium, San Diego, CA,
 November 2013 **(Invited Lecture)**
- 338 Mihaly J.M., Rosakis A.J., Sammis C.G., Bhat H.S.
 “An Experimental and Theoretical Study of Fracture Patterns and Particle Motion Generated by Underground Explosions”, AGU Fall
 Meeting, San Francisco, CA, December 2013
- 339 Rubino, V., Lapusta, N., Rosakis, A. J.
 “Imaging Earthquakes from Space: A laboratory study”, 5th Annual James K. Knowles Lecture and Caltech Solid Mechanics
 Symposium, California Institute of Technology, Pasadena, CA, January 2014 **(Invited Lecture)**
- 340 Gabuchian, V., Rosakis, A. J., Lapusta, N.
 “Earthquakes may open faults”, 6th Annual James K. Knowles Lecture and Caltech Solid Mechanics Symposium, California Institute
 of Technology, Pasadena, CA, February 2015. **(Invited Lecture)**
- 341 Rubino, V., Rosakis, A.J., Lapusta, N.
 “Imaging supershear laboratory earthquakes with ultra-high-speed DIC”, SSA 2015 Annual Meeting, Pasadena, CA, April 2015
- 342 Rubino, V., Rosakis, A.J., Lapusta, N.
 “Ultra-high-speed DIC applied to intersonic laboratory earthquakes,” SEM 2015 Annual Conference, Costa Mesa, CA, June 2015
- 343 Rubino, V., Rosakis, A.J., Lapusta, N.
 “Dynamic imaging of strain and stress evolution in laboratory earthquakes with the ultra-high-speed digital image correlation
 Technique”, American Geophysical Union (AGU) Fall Meeting, San Francisco, CA, December 2015
- 344 Gori, M., Rubino, V., Rosakis, A. J., Lapusta, N.,
 “Laboratory Earthquakes Induced by Fluid Injection”, 7th Annual James K. Knowles Lecture and Caltech Solid Mechanics
 Symposium, California Institute of Technology, Pasadena, CA, February 2016. **(Invited Lecture)**
- 345 Rubino, V, Rosakis A.J., Lapusta N.
 “Dynamic friction measurements using ultra-high-speed digital image correlation in laboratory earthquake ruptures”,
 International Digital Image Correlation Soc. (iDICs) 2016 Conf. & Workshop, SEM Fall Conf., Philadelphia, PA, Nov. 7-10, 2016
- 346 Rosakis A.J., Lapusta N., Rubino, V.
 “Dynamic Imaging of Spontaneously Evolving Friction in Laboratory Earthquakes”, American Geophysical Union, Annual (AGU)
 Fall Meeting, San Francisco, CA, December 2016 **(Invited Lecture)**
- 347 Gori, M., Rubino, V., Rosakis, A.J., Lapusta, N.
 “Laboratory Earthquakes Nucleated by Fluid Injection,” AGU, Annual Fall Mtg., San Francisco, CA, Dec 2016
- 348 Rosakis, A. J., Lapusta, N, Rubino, V.
 “Using Sub-Rayleigh and Super-shear Laboratory Earthquake Ruptures to reveal the structure of Dynamic Friction,” 14th
 International Conference on Fracture (ICF-14), Distinguished Lecture, Rhodes, Greece, June 18-23, 2017 **(Invited Lecture)**
- 349 Rubino, V., Rosakis, A. J., Lapusta, N.
 “Sub-Rayleigh and supershear rupture characteristics inferred from dynamic digital image correlation measurements”, Engineering
 Mechanics Institute Conference 2019, California Institute of Technology, Pasadena, CA., June 18-21, 2019

350 Gori, M, Rubino, V., Rosakis, A. J., Lapusta, N.
 “Earthquakes nucleation influenced by fluid pore-pressure rate; a laboratory investigation”, 7th International Conference on Coupled
 THMC Processes: Earthquake and Faulting Mechanics (GeoProc2019), Utrecht Conference, the Netherlands July 3-5 2019

351 Rosakis, A. J.
 “Representing Mega Earthquakes in the Laboratory: The discovery of Super-Shear, or Intersonic, Earthquake Ruptures,” Indian
 Institute of Sciences Public Lecture at IISc, Celebrating 100 Years of the Birth of Vikram Sarabhai, Sept. 9, 2019 (**Honor Lecture**)

352 Rosakis, A. J.
 “Laboratory Earthquakes: Using Individual Ruptures to Reveal the Nature of Dynamic Friction”, Aurel Stodola Medal and Lecture
 on the 160th Anniversary of Professor Stodola’s birth hosted by ETH’s leadership and the Slovakian Ambassador to Switzerland,
 ETH Zurich, November 25, 2019 (**Honor Lecture**)

353 Donzelli, A., Rubino, V., Rosakis, A.J., Lapusta, N., Rossi, M.
 “Error Assessment of Dynamic Supershear Rupture Measurements Obtained with Digital Image Correlation”, International Digital
 Image Correlations Society Virtual Conference, Nantes, France 2020, October 19-22, 2020 (Virtual)

354 Rubino, V., Rosakis, A.J., Lapusta
 “Recent advances in capturing the behavior of dynamic shear cracks using ultrahigh-speed digital image correlation”, International,
 Digital Image Correlations Society Virtual Conference, Nantes, France 2020, October 19-22, 2020 (Virtual)

355 Rosakis, A. J., Rubino, V., Tal, Yuval., Lapusta, N,
 “Following Individual Ruptures: A New approach for Measuring Dynamic Friction in the Lab”, AGU Fall Meeting 2020, Session:
 Earthquake in the Laboratory, 1-17 December, 2020 (Virtual)

356 Rubino, V., Rosakis, A.J., Lapusta
 “Supershear and Sub-Rayleigh Rupture Behavior Quantified by Full-Feld Laboratory Measurements”, AGU Fall Meeting 2020,
 Session: Supershear Earthquakes: Recent Observational, Experimental, and Theoretical Developments, 1-17 Dec. 2020 (Virtual)

357 Bhat, H., Amlani, F., Simons, J. W., Schubnel, A., Vigny, C., Rosakis, A.J., Efendi, J., Elbanna, A. E., Abdin, H. Z.
 “Tsunami generation due to supershear earthquakes: a case study”, AGU Fall Meeting, S030-0005, 2020

358 Bhat, H., Jara, J., Bruhat, L., Antoine, S., Okubo, K., Thomas, M. Y., Rougier, E., Rosakis, A. J., Klinger, J., Jolivet, R., Sammis, C.
 “Signature of supershear transition in natural earthquakes”, AGU Fall Meeting Abstracts 2020, S030-0006

359 Tal, Y., Rubino, V., Rosakis, A.J., Lapusta, N.
 “Thrust-fault dynamics and frictional resistance response inferred through laboratory earthquakes”, EGU General Assembly
 Conference, EGU21-1056, 2021

360 Rosakis, A.J.
 Horace Mann Medal and Lecture, 2021 Commencement Forum (Virtual) at Brown U., Prov. RI, May 2021 (**Honor Lecture**)

361 Rubino, V., A.J. Rosakis and N. Lapusta,
 “Recent advances in capturing the behavior of dynamic shear cracks using ultrahigh-speed digital image correlation”,
 Photomechanics iDICs Conference, Nantes, France, 3-5 November 2021

362 Rubino, V., Y. Tal, A. J. Rosakis, and N. Lapusta
 “Evolution of dynamic shear strength of frictional interfaces during rapid normal stress variations”, 13th International Conference on
 Mechanical and Physical Behaviour of Materials Under Dynamic Loading (Dymat), Madrid, September 20-24, 2021

363 Rubino, V., Y. Tal, A. J. Rosakis, and N. Lapusta
 “Experimental study of frictional shear resistance under rapid variations of normal stress and near-field ground motion of thrust
 earthquakes”, Southern California Earthquake Center (SCEC) Annual Meeting (held virtually), September 1-3, 2021

364 Lattanzi, A., V. Rubino, A. J. Rosakis, N. Lapusta, M. Rossi,
 “Evaluation of the error associated with shear ruptures measurements obtained with ultrahigh-speed digital image correlation”, 50th
 AIAS conference (held virtually), September 1-3, 2021

365 Rubino, V., A. J. Rosakis, and N. Lapusta
 “Interrogation of crack tip fields and friction through ultrahigh-speed digital image correlation,” International Conference of
 Theoretical and Applied Mechanics (ICTAM 2020+1), Milan (held virtually), August 23-27, 2021

366 Rubino, V., A. J. Rosakis, and N. Lapusta
 Dynamic shear crack propagation and friction evolution captured by digital image correlation, *51st AIAS Conference*, Padua, Italy,
 September 7-10, 2022

367 Lattanzi A., V. Rubino, A. J. Rosakis, N. Lapusta, M. Rossi, “A digital twin framework to assess the uncertainties associated with
 dynamic friction measurements by means of ultrahigh-speed Digital Image Correlation”, *51st AIAS Conference*, Padua (Italy),
 September 7-10, 2022

368 Liu, S., N. Lapusta, V. Rubino, A. Rosakis, “Modeling intermittent laboratory earthquakes in fault gouge using rate-and-state
 friction with flash heating”, *Southern California Earthquake Center (SCEC) Annual Meeting*, September 11-14, 2022.

369 Rubino, V., A. J. Rosakis, and N. Lapusta, Dynamic shear strength variations in compressed granular materials, *ALERT Workshop*,
 Aussois (France), September 26-28, 2022

370 Rosakis, A. J.
 “Lab-Earthquakes: Using Super-fast Ruptures to Reveal the Nature of Dynamic Friction During Earthquakes”, The 2022 Prager
 Medal Symposium, in honor of Vikram Deshpande, 2022 Society of Engineering Science Annual Technical Meeting, College
 Station, Texas, October 2022

371 Rosakis, A. J.
 “Mechanics Dispels the Myth that Strike-Slip Fault Earthquakes are Incapable of Generating Killer Tsunamis”, ASME 2022
 International Mechanical Engineering Congress and Exposition (IMECE), Drucker Medalist Symposium, November 2022

372 Rubino, V., A. J. Rosakis, and N. Lapusta,
 “Dynamic weakening and rupture re-nucleation in rock gouge”, *EGU General Assembly 2023*, Vienna, Austria, 24–28 Apr 2023,
 EGU23-11776, <https://doi.org/10.5194/egusphere-egu23-11776>, 2023

- 373 Abdelmeguid, M., Elbanna, A., Ma, X., Amlani, F., Bhat, H. S., Synolakis, C., Rosakis, A. J.
 “Anatomy of Strike Slip Fault Tsunami-genesis”, AGU Fall Meeting 2021, New Orleans, LA, 13-17 December 2021
- 374 Elbanna, A., Abdelmeguid, M., Ma, X., Amlani, F., Bhat, H. S., Synolakis, C., Rosakis, A. J.
 “Anatomy of Strike Slip Fault Tsunami-genesis”, Seismological Society of America Annual Meeting, Oral Presentation, 2021
- 375 Elbanna, A., Abdelmeguid, M., and Rosakis, A. J.
 “Evidence of Early Supershear Transition in the Mw 7.8 Kahramanmaraş Earthquake From Near-Field Records”, Seismological Society of America Annual Meeting, San Juan, Puerto Rico, 17–20 Apr 2023
- 376 Elbanna, A., Abdelmeguid, M., and Rosakis, A. J.
 “Evidence of Early Supershear Transition in the Mw 7.8 Kahramanmaraş Earthquake From Near-Field Records,” EGU General Assembly 2023, Vienna, Austria, 24–28 Apr 2023, EGU23-17601, <https://doi.org/10.5194/egusphere-egu23-17601>, 2023.
- 377 Rosakis, A. J.
 “Representing Mega Earthquakes in the Laboratory: The discovery of “Super- Shear” earthquake Ruptures and its importance for the Mw 7.8 Feb. 6th 2023 Earthquake in Turkey”, Athens College, Greece, March 2023
- 378 Rosakis, A. J.
 “The Destructive Power of Supershear Ruptures as observed in the devastating, Feb 6th, 2023, Mw 7.8 Kahramanmaras/Pazarcik, Türkiye/Syria Mega-Earthquake”, Honorary Doctorate Lecture, National Technical University of Athens (NTUA), Nov 2023. **(Honor Lecture)**
- 379 Rosakis, A. J.
 “The Destructive Power of Supershear Ruptures as observed in the devastating, Feb 6th, 2023, Mw 7.8 Kahramanmaras/Pazarcik, Türkiye/Syria Mega-Earthquake”, GPS Division, California Institute of Technology, Nov 2023. **(Invited Lecture)**
- 380 Rosakis, A. J.
 “Representing Mega Earthquakes in the Laboratory: The discovery of “Super- Shear” earthquake Ruptures and its importance for the Mw 7.8 Feb. 6th 2023 Earthquake in Turkey”, University of Southern California (USC), Jan 2024, **(Invited Lecture)**
- 381 Rosakis, A. J.
 “The Destructive Power of Supershear Ruptures as observed in the devastating, Feb 6th, 2023, Mw 7.8 Kahramanmaras/Pazarcik, Türkiye/Syria Mega-Earthquake: A Lesson from Mechanics”, Inaugural Lyle School Lecture, School of Engineering, Southern Methodist University (SMU), Dallas, TX., Feb 2024. **(Honor Lecture)**