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- 1 Rosakis, A.J., Rosakis, P.J.
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- 3 Zehnder, A.T., Rosakis, A.J.
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- 5 Rosakis, A.J., Ravichandran, G.
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- 11 Biegel, R. L., Bhat, H. S., Sammis, C. G., Rosakis, A. J.
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- 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 Pnotched 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 Pnotched 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 Interfacial 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.
 “Interfacial 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 Interfacial & 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 Interfacial 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 Interfacial 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 Interfacial 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.
 “Interfacial 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 Interfacial 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 Interfacial 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 Intersonic 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.
 “Intersonic 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 Heterogeneous
 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.
 “Intersonic 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 Intersonic 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 Intersonic 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.
 “Intersonic 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.
 “Interfacial 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.
 “Interfacial 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.
 “Interfacial 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 Interfacial 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.
 “Interfacial 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 Intersonic 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.
 “Intersonic 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)**
- 208 Park, T-S., Rosakis, A. J., Suresh, S.,
 “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
- 209 Rosakis, A.J., Kanamori, H., Xia, K. and Rice, J.R.
 “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
- 210 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
- 211 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
- 212 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
- 213 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
- 214 Rosakis, A. J.
 “Laboratory Earthquakes”, Proceedings of International Conference on Fracture, Turin, Italy, March 20-25, 2005 **(Plenary Lecture)**
- 215 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
- 216 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.
 “Defection 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.
 “Intersonic 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.
 “Intersonic 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.
 “Intersonic 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 Revel 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)**