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PERSONAL BACKGROUND

- Place of Birth Lawrence, Kansas, USA.
- Personal: Elementary, primary and secondary education in Baton Rouge, Louisiana, USA.

EDUCATION

- 2002 Habilitation in Mechanics, Gottfried Wilhelm Leibniz Universitaet Hannover, Germany.
- (Habilitation Advisor: P. Wriggers)
- 1997 Ph. D. in Computational and Applied Math., The University of Texas at Austin.
- (Ph. D. Advisor: J. T. Oden)
- 1991 Master of Science in Mechanical Engineering, Louisiana State University.
- 1989 Bachelor of Science in Mechanical Engineering, Louisiana State University.

ACADEMIC APPOINTMENTS

- 7/2016-present Will C. Hall Family Endowed Chair in Engineering, UC Berkeley.
- 7/2014-present Chancellor's Professor, UC Berkeley.
- 7/2009-present Professor, Dept. of Mechanical Engineering, UC Berkeley.
- 7/2004-6/2009 Associate Professor, Dept. of Mechanical Engineering, UC Berkeley.
- 7/2001-6/2004 Assistant Professor, Dept. of Mechanical Engineering, UC Berkeley.
- 12/1998-6/2001 Lecturer, Inst. fuer Baumech. und Num. Mech., Leibniz Univ. Hannover.
- 5/1997-12/1998 Post-doctoral Researcher, Inst. fuer Mech., Tech. Univ. Darmstadt

ACADEMIC ADMINISTRATIVE APPOINTMENTS

- 7/2012-present Chair, Computational and Data Science and Eng. Program, UC Berkeley.
- 7/2009-6/2012 Vice-Chair for Instruction, Dept. of Mech. Eng., UC Berkeley.
- 7/2008-6/2012 Chair, Engineering Science Program, UC Berkeley.
- 7/2008-11/2008 Acting Assoc. Dean, Interim Eng. Sci. Prog. Exec. Comm., UC Berkeley.

PROFESSIONAL APPOINTMENTS

- 1/2017-present Appointed Director of the Northern California Regional Smart Clean Manufacturing Demonstration Center: see <http://engineering.berkeley.edu/2016/06/california-new-headquarters-smart-manufacturing-institute>
<http://www.me.berkeley.edu/about/news/president-obama-announces-winner-new-smart-manufacturing-innovation-institute-competition>
<http://nnmi.berkeley.edu/members.html>
- 1/2017-present Appointed Director of the Northern California Regional Robotics and

Manufacturing Center: see

<http://www.me.berkeley.edu/about/news/dod-announces-award-new-advanced-robotics-manufacturing-arm-innovation-hub>

<http://engineering.berkeley.edu/2017/01/berkeley-regional-center-new-robotics-manufacturing-consortium>

- 4/2014-present Appointed by the U. S. National Academy of Sciences and the National Research Council as member of U. S. National Com. for Theoretical and Applied Mechanics (USNCTAM)
- 7/2012-7/2014 President, United States Association for Computational Mechanics.
- 9/2011-present Faculty Scientist, Lawrence Berkeley National Lab: <http://www.lbl.gov/>
- 9/2006-present Adjunct Scientist, Children's Hospital Oakland Research Institute (CHORI).

AWARDS

- 2017 University of California, Berkeley Distinguished Teaching Award. The Distinguished Teaching Award is a campus-wide recognition for faculty that have established a sustained and varied record of teaching excellence. This is the highest award for teaching in the University.
<http://teaching.berkeley.edu/node/240>
<https://www.youtube.com/watch?v=ntzkn71r2Sg>
- 2014 Best Visual Display of the 2014 Society of Petroleum Engineers International Oil Field Corrosion Conference and Exhibition (United Kingdom). Authors: Mukherjee, D., Zaky, Z., Zohdi, T. I., Salama, A. and Sun, S.
- 2011 LSU Mechanical Engineering Alum of the Year 2011. Citation: A special honor reserved for one Louisiana State University (LSU) ME alumnus per year for an exceptional level of achievement.
- 2009 Fellow of the United States Association for Computational Mechanics (USACM). The Fellow Award recognizes individuals for contributions to computational mechanics. The Fellow Award was presented at the United States National Congress for Computational Mechanics in Columbus, Ohio, 2009.
- 2008 Fellow of the International Association for Computational Mechanics (IACM). The Fellow Award recognizes individuals with a distinguished record of research, accomplishment and publication in areas of computational mechanics. The Fellow Award was presented at the World Congress for Computational Mechanics in Venice, Italy in 2008.
- 2008 Excellence in Teaching Award, Pi Tau Sigma, The University of California (Berkeley) Mechanical Engineering Honor Society. This is given to one instructor that has shown dedication and support for student learning.
- 2003 Junior Achievement Award of the American Academy of Mechanics. The award is given once a year, to one post-graduate researcher, to recognize outstanding research during the first decade of a professional career. The award was presented at a ceremony in Washington D. C. during the annual ASME Winter Conference.
- 2002 Best Paper of the Year 2001. Awarded in London at the Lord's Cricket Ground by the Literati Club for Modeling and simulation of the decohesion of particulate aggregates in a binding matrix (Co-author: P. Wriggers). Journal: Engineering Computations.
- 2000 The Zienkiewicz Prize and Medal. The prize and medal are awarded once every two years, to one post-graduate researcher under the age of 35, by The Institution of Civil Engineers in London, to commemorate the work of Professor O. C. Zienkiewicz, for research which contributes most to the field of numerical methods in engineering.
- 1994-1997 University of Texas Computational and Applied Mathematics Fellowship. The CAM Fellowship is a full scholarship awarded to recognize achievement and commitment to computational and applied mathematics.
- 1992 Southwest AIAA Best Student Technical Lecture Award. The award is given once every year

from a southwest regional oral paper presentation competition on graduate research problems.

PROFESSIONAL SERVICE

(1) SERVICE AS AN EDITOR OR REVIEWER FOR SCHOLARLY JOURNALS/OTHER PUBLICATIONS:

(A) EDITORIAL BOARDS (Currently 10 Journals and 1 Book Series):

1. (2013-present) Co-founder/Co-Ed.-in-Chief: Comp. Part. Mech. (with P. Wriggers, E. Onate).
2. (2012-present) Appointed: Editorial Adv. Board of journal Adv. Mod. And Sim. in Eng. Sci.
3. (2012-present) Appointed: Editorial Board of journal Comp. and Math. with Applications
4. (2010-present) Appointed: Wiley (book) Series Advisor in Computational Mechanics
5. (2009-present) Appointed: Editorial Advisory Board of Computers and Structures
6. (2008-present) Appointed: Editor of the journal Computational Mechanics
7. (2008-2014) Appointed: Editor of the quarterly newsletter of U S. Assoc. for Comp. Mech.
8. (2008-present) Appointed: Editorial Adv. Board of The Int. Journal of Num. Meth.in Eng.
9. (2007-present) Appointed: Editorial Advisory Board of The Int. Journal of Eng. Science
10. (2007-present) Appointed: Editorial Advisory Board of the journal Computational Mechanics
11. (2005-present) Appointed: Editorial Advisory Board of Comp. Meth. in Appl. Mech.and Eng.
12. (2002-present) Appointed: Editorial Advisory Board of The Journal of Multiscale Comp. Eng.

(B) GUEST EDITORIAL POSITIONS:

1. (2016-2017) Appointed: Guest Editor. Special Issue of Physical Modeling for Virtual Manufacturing Systems and Processes.
2. (2016) Appointed: Guest Editor of a special issue entitled Particle Modeling and Simulation of Powder-based Processes in Advanced Manufacturing in the journal Computational Particle Mechanics
3. (2014) Appointed: Guest Editor of a special issue entitled Modeling and Simulation of Advanced Manufacturing Processes in the journal Computational Mechanics
4. (2012) Appointed: Guest Editor of a special issue entitled Materials for modern energy applications in the journal Computational Mechanics (with S. Schmauder)
5. (2009) Appointed: Guest Editor of a special issue of the journal Computer Methods in Applied Mechanics and Engineering: Advances in Simulation-Based Engineering Sciences-Honoring J. T. Oden (with L. Demkowicz and P. Papadopoulos)
6. (2007) Appointed: Guest Editor of a special issue of the journal Modelling and simulation in materials science and engineering on complex materials (with J. LLorca and H. Blöhm).
7. (2005) Appointed: Guest Editor of a special issue of the journal Mechanics of Materials on disordered media

(C) JOURNAL AND BOOK REVIEWER: Computer Methods in Applied Mechanics and Engineering, The International Journal of Numerical Methods in Engineering, Communications in Numerical Methods in Engineering, Zeitschrift für Angewandte Mathematik und Physik, The Philosophical Transactions of the Royal Society, The Proceedings of the Royal Society, The International Journal of Engineering Science, ASME Journal of Applied Mechanics, ASCE Journal of Engineering Mechanics, Computers and Structures, The Journal of Multiscale Computational Engineering, The Journal of Elasticity, Computational Mechanics, The International Journal of Heat and Mass Transfer, The International Journal of Fracture, Mechanics of Cohesive-frictional Materials, Continuum Mechanics and Thermodynamics, Journal of Biomechanics, ASME Journal of Biomechanics, ASME Journal of Fluids Engineering, Geophysics, Modelling and Simulation in Materials Science and Engineering, Proceedings of the Institution of Mechanical Engineers, Part H, Journal of Engineering in Medicine, Annals of Biomedical Engineering, Cambridge University Press Books, Springer

Verlag Books, Journal of Composite Materials, Journal of Impact Engineering, Mechanics of Materials, Mathematics and Mechanics of Solids, ASME Journal of Manufacturing Science and Engineering, Biomechanics and Modeling in Mechanobiology, Journal of Thin Solid Films, Wear, ASME Journal of Mechanical Design, ASME Journal of Biomechanical Engineering, IDETC/CIE 2012 conference, Institute of Physics Journal, Computers and Mathematics with Applications, International Journal of Rock Mechanics and Mining Sciences, Crystal Growth and Design, Journal of Vibration and Acoustics, The International Journal of Numerical Methods in Fluids, Engineering with Computers, The International Journal of Fracture, Advances in Engineering Software, Technische Mechanik, Proceedings of the National Academy of Sciences, Computers, Materials and Continua, Computational Materials Science, The Proceedings of the Royal Society Interface, PLOS-ONE, Philosophical Mag, Journal of Mechanics of Materials and Structures, ASME Journal of Engineering Materials and Technology, Medical and Biological Engineering and Computing, Mathematical Problems in Engineering, Advanced Modelling and Simulation in Engineering Sciences, The International Journal of Thermal Sciences, Journal of Chemical Eng. and Materials Science.

(2) SERVICE TO SCHOLARLY OR PROFESSIONAL SOCIETIES:

(A) ELECTED POSITIONS:

1. (2012-2014) Elected: President of the United States Association for Computational Mechanics. The USACM is the primary computational mechanics organization in the United States.
2. (2010-2012) Elected: Vice-President of the United States Association for Computational Mechanics.
3. (2008-2010) Elected: Secretary/Treasurer of the United States Association for Computational Mechanics.
4. (2009-2015) Elected: Member of the General Council of the International Association of Computational Mechanics (IACM). The IACM is the primary international organization worldwide.
5. (2006-2010) Elected: Executive Council of the United States Association for Computational Mechanics. Eight people are elected nation-wide every four years.

(B) APPOINTED SCIENTIFIC BOARD POSITIONS:

1. (2017-2018) Appointed: Scientific Committee for the 13th World Congress on Computational Mechanics (WCCM XIII) / 2nd Pan American Congress on Computational Mechanics (PANACM II), New York City, July 22-27, 2018.
2. (2017-2018) Appointed: Scientific Committee for the 18th World Congress for Computational Mechanics Theoretical and Applied Mechanics June 4-9, 2018, Evanston Illinois.
3. (2017-2018) Appointed: Scientific Committee 18th US national Congress for Theoretical and Applied Mechanics June 4-9, 2018, Evanston Illinois.
4. (2016-2017) Appointed: Scientific Committee member of Contact Mechanics International Symposium, Oropo, Italy, May 16-17, 2018
5. (2017-2018) Appointed: Scientific Committee member of the 9th International Conference of the Croatian Society of Mechanics, Split, Croatia, September 18-22 2018
6. (2016-2017) Appointed: Scientific Committee member of the 5rd International Conference on Computational Contact Mechanics (ICCCM 2017), Lecce, Italy, July 4-7, 2017
7. (2016-2017) Appointed: Scientific Committee member of the ECCOMAS thematic conference entitled Simulation for Additive Manufacturing (Sim-AM), October 11-13, 2017, Munich, Germany.
8. (2016-2017) Appointed: Scientific Committee member of the ECCOMAS thematic conference entitled Computational modeling of complex materials across the scales (CMCS), November 7-9, 2017, Paris, France.
9. (2015-2017) Appointed: Scientific Committee member of the UNCECOMP 2017, the 2nd International Conference on Uncertainty Quantification in Computational Sciences and

- Engineering, 15-17 June 2017, Rhodes Island, Greece
10. (2015-2016) Appointed: Scientific Committee member of the symposium on Additive Manufacturing. 12th edition of NUMIFORM conferences (Numerical Methods in Industrial Forming Processes), University of Technology of Troyes, France, July 4-7, 2016.
 11. (2015-2016)Appointed: Scientific Committee member of the 12th World Congress on Computational Mechanics, Seoul, Korea, July 24-29, 2016.
 12. (2015-2016)Appointed: Scientific Committee member of the 8th Contact Mechanics International Symposium, Warsaw, Poland, May 11-13, 2016.
 13. (2015-2016)Appointed: Scientific Committee member of the 6th Asia-Pacific Congress on Computational Mechanics (APCOM VI), July 24-29, 2016.
 14. (2014-2015)Appointed: Scientific Committee for the Fifteenth International Conference on Civil, Structural and Environmental Engineering Computing: Civil-Comp 2015 (CC2015), Prague, Czech Republic from September 1-4, 2015.
 15. (2014-2015)Appointed: Scientific Committee for ECCOMAS Thematic Conference on Multiscale Computational Methods for Solids and Fluids (ECCOMAS MSF 2015), July 20-23, 2015, Sarajevo, Bosnia and Herzegovina.
 16. (2014-2015)Appointed: Scientific Committee for the Thematic Conference on Uncertainty Quantification in Computational Sciences and Engineering (UNCECOMP 2015) to be held on the Island of Crete, Greece on 25-27 May 2015.
 17. (2013-2014)Appointed: Scientific Committee for the Contact Mechanics International Symposium (CMIS2014), Abu Dhabi, February 3-5, 2014.
 18. (2013-2014)Appointed: International Scientific Committee for the Twelfth International Conference on Computational Structures Technology (CST2014), Naples, Italy, September 2-5, 2014.
 19. (2013-2015)Appointed: International Scientific Committee for the First Pan American Congress on Computational Mechanics, Buenos Aires, Argentina, April 27-29, 2015.
 20. (2012-2014)Appointed: United States Representative for the Organizing Committee of the 11th World Congress on Computational Mechanics, Barcelona, Spain, July 20-25, 2014
 21. (2012-2014)Appointed: Scientific Committee member of the 11th World Congress on Computational Mechanics, Barcelona, Spain, July 20-25, 2014
 22. (2012-2014)Appointed: Scientific Committee member of the 6th European Conference on Computational Fluid Dynamics, Barcelona, Spain, July 20-25, 2014
 23. (2012-2014)Appointed: Scientific Committee member of the 5th European Conference on Computational Mechanics, Barcelona, Spain, July 20-25, 2014
 24. (2012-2013)Appointed: Scientific Committee member of the 3rd International Conference on Computational Contact Mechanics (ICCCM 2013), Lecce, Italy, July 10-12, 2013
 25. (2011-2012)Appointed: Conference Organizing Committee. 22nd International Workshop on Computational Mechanics of Materials. Sept. 24-26, 2012, Baltimore, Maryland.
 26. (2011-2012)Appointed: Conference Editorial Board for The Eleventh International Conference on Computational Structures Technology, September 4-7, 2012, Dubrovnic, Croatia.
 27. (2011-2013) Appointed: USACM-Scientific Program Committee for the Twelfth United States National Congress on Comp. Mechanics (USNCCM) in Raleigh, North Carolina (July, 2013)
 28. (2010-2011) Appointed: International Scientific Committee for the conference ICCM2: The Second International Conference on Material Modelling, Paris, France (August, 2011)
 29. (2010-2011) Appointed: International Scientific Committee for the conference Trends and Challenges in Computational Mechanics: TCCM 2011, Padua, Italy (September, 2011)
 30. (2010-2012) Appointed: Scientific Committee of the 10th World Congress on Computational Mechanics, Sao Paulo, Brazil July 8-13, 2012
 31. (2009-2012)Appointed: Scientific Organizing Committee The European Congress on Computational Methods in Applied Sciences and Engineering, Vienna, September 10-14, 2012.
 32. (2009-2011) Appointed: USACM-Scientific Program Committee for the Eleventh United States National Congress on Computational Mechanics (USNCCM) in Minneapolis, Minnesota (July 25-

- 28, 2011)
33. (2009-2010) Appointed: Conference Editorial Board for The Tenth International Conference on Computational Structures Technology, September 14-17, 2010, Valencia, Spain.
 34. (2008-2010) Appointed: International Advisory Board of ECCM 2010, Fourth European Conference on Computational Mechanics (Solids, Structures and Coupled Problems in Engineering), Paris, May 16-21, 2010.
 35. (2007-2009) Appointed: USACM-Scientific Program Committee for the Tenth United States National Congress on Computational Mechanics (USNCCM) in Columbus, Ohio
 36. (2004-2005) Appointed: USACM-Scientific Program Committee for the Eighth United States National Congress on Computational Mechanics (USNCCM) in Austin, Texas

(C) CONFERENCE ORGANIZATION:

1. (2016-2017) Co-Organizer: Computational Mechanics of Particle-Functionalized Fluid and Solid Materials for Additive Manufacturing and 3D Printing (Processes (with E. Shaqfeh), IUTAM/AmeriMech Conf. Berkeley, California, May 30-31, 2017
2. (2016-2017) Co-Organizer: COMPFEST workshop-Computational Mechanics Festival (Co-organizers: S. Govindjee, T. Zohdi, C. Linder, A. Lew, Berkeley, California, April 8, 2018.
3. (2016-2017) Co-organizer: Workshop: Advances in Computational Science, Engineering and Mathematics. March 2017, Austin, Texas. (Co-organizers: L. Demkowicz, J. N. Reddy, P. Le Tallec and S. Prudhomme).
4. (2016) Organizer: Advanced Robotics Manufacturing Workshop: Berkeley, Ca., May 25, 2016
5. (2015-2016) AmeriMech Administrator: Conference on mechanical behavior of 2D materials grapheme and beyond. (Co-organizers: R. Huang and K. Leichti). AmeriMech Sponsored Conference. Austin, Texas, April 4-6, 2016
6. (2015) Co-Organizer: Army High Performance Computing Research Center Conference on Additive Manufacturing. (Co-organizers: W. Cai, C Farhat, B. Henz and A. Lew). Adelphi, Maryland, December 15-16, 2015
7. (2015) AmeriMech Administrator: Conference on nonlocal models, computation, science and engineering. AmeriMech Sponsored Conference, Oakridge Tennessee, October 26-28, 2015.
8. (2015-2016) Co-organizer: Conference on Multiscale Methods and Validation in Medicine and Biology III: Biomechanics and Mechanobiology. (Co-organizers: W. Klug, K. Garikipati, C. Haselwandter and A. Levine). Los Angeles, February 25-26, 2016.
9. (2014-2015) Co-Organizer: Workshop-Synergy between Computational Mechanics and Manufacturing. (Co-organizers: P. Wriggers, J. Aurich, J. Schroeder and D. Dornfeld), Hannover, Germany. July 13-14, 2015.
10. (2013-2014) Co-Organizer: COMPFEST workshop-Computational Mechanics Festival (Coorganizers: C. Farhat, S. Govindjee, A. Lew, C. Linder (chair), P. Marcus, and P. O. Persson). Palo Alto, California.
11. (2014) Organizer: Conference: UC Berkeley-Brazil (FAPESP) Conference, "FAPESP Week", for fostering UCB and Sao Paulo relations. Berkeley, Ca. November 17-18, 2014.
12. (2014) Organizer: Workshop: UC Berkeley-Norway Workshop on Next-Generation Building efficiency Berkeley, Ca. September 15, 2014.
13. (2013-2015) Organizer: The Fourth Conference on Particle-Based Methods (PARTICLES 2015, with E. Onate, R. Owen and P. Wriggers), Sept. 28-30, Barcelona, Spain.
14. (2013-2014) Organizer: Workshop: Synergy between Computational Mechanics and Manufacturing. (Co-organizers: D. Dornfeld, J. Aurich, P. Wriggers and J. Schroeder) Berkeley, Ca. April 1-2, 2014.
15. (2012-2013) Organizer: Workshop on Computational Methods for Problems With Evolving Domains and Discontinuities. (Co-organizers: C. Farhat and A. Lew). Palo Alto, California.

16. (2012-2013) Organizer: COMPFEST workshop-Computational Mechanics Festival (Co-organizers: D. Mukherjee, P. Marcus, C. Farhat and A. Lew). Berkeley, California.
17. (2012-2014) Organizer: Conference on Multiscale Methods and Validation in Medicine and Biology II: Biomechanics and Mechanobiology. (Co-organizers: E. Kuhl, G. Garikipati and P. Papadopoulos). Berkeley, California.
18. (2012) Organizer: Session organizer for "New Materials for Energy Applications. Modeling and Simulation of Multiphysical Processes in New Materials for Energy-Related Applications." 22nd International Workshop on Computational Mechanics of Materials (IWCMM XXII). September 24-26, 2012 in Baltimore, Maryland.
19. (2011-2012) Organizer: Workshop: Advances in Computational Science, Engineering and Mathematics. January 19-20, Austin, Texas. (Co-organizers: L. Demkowicz, A. Patra, J. N. Reddy, P. Le Tallec and S. Prudhomme).
20. (2010) Organizer: IUTAM/CISM Lecture Series (week long workshop) on modeling and simulation of multiphysical processes in multiscale systems in Udine, Italy (co-organized with P. Papadopoulos)
21. (2005-2007) Organizer: Ninth United States National Congress on Computational Mechanics (USNCCM) in 2007 in San Francisco (co-organized with P. Papadopoulos)
22. (2005) Organizer: CISM (the International Centre For Mechanical Sciences) Lecture Series (week long workshop) on Multiscale modeling and design of new materials in Udine, Italy.
23. (2005) Organizer: Berkeley/Stanford Computational Fest (one day colloquium) co-organized with P. Marcus and C. Farhat. <http://www.me.berkeley.edu/compfest/>
24. (2004) Organizer: Prager Symposia (6 sessions) for the Society of Engineering Science (SES) Lincoln, Nebraska, USA (with W. Curtin).
25. (2002) Organizer: CISM (the International Centre For Mechanical Sciences) Lecture Series (week long workshop) on Computational Micromechanics in Udine, Italy (co-organized with P. Wriggers).
26. Other organized events: (2007) Minisymposium. Org.: (1 session) U. S. National Congress on Computational Mechanics (USNCCM); San Francisco, USA.; (2003) Minisymposium. Org.: (6 sessions) U. S. National Congress on Computational Mechanics (USNCCM); Albuquerque, USA. (with J. Fish, S. Ghosh and P. Ladeveze); (2001) Minisymposium. Org.: (6 sessions) United States National Congress on Computational Mechanics (USNCCM). Dearborn, USA. (with J. T. Oden and P. Wriggers); (2001) Minisymposium. Org.: (1 session) MIT FEM Conference. Cambridge, USA. (with P. Wriggers); (2001) Minisymposium. Org.: (1 session) European Conference on Computational Mechanics (ECCM). Cracow, Poland. (with T. Lewinski); (2000) Minisymposium. Org.: (1 session) Gesellschaft für Angewandte Mathematik und Mechanik (GAMM). Göttingen, Germany (with P. Wriggers); (1999) Minisymposium. Org.: (1 session) European Conference on Computational Mechanics (ECCM). Munich, Germany. (with P. Wriggers)

(D) OTHER APPOINTED PROFESSIONAL POSITIONS:

- (2017) Appointed: Editor of conference proceedings of IRTG Conference in Speyer, Germany, 2017
- (2016-present) Appointed: Gottfried Leibniz University Hannover (Germany) tenure board for the step from W1 to W2 and W2 to W3 professors.
- (2016) Appointed: Reviewer of reports for the National Academy of Sciences.
- (2015-present) Appointed: National Co-Chairman of AmeriMech by the U. S. National Academy of Sciences and the National Research Council as a Co-Chairman (with John Dabiri) of the National AmeriMech Symposium Series for the U. S. National Committee for Theoretical and Applied Mechanics (USNCTAM)
- (2016) Appointed: Judge for the Berkeley Energy Resources Collaborative (BERC) Innovation Expo. (2/18/2016)

- (2015-present) Appointed: Judge for Samsung International Doctoral Scholarships
- (2015) Appointed: Judge for Young Researcher Best Paper Competition for the Fifteenth International Conference on Civil, Structural and Environmental Engineering Computing: Civil-Comp 2015 (CC2015), Prague, Czech Republic from September 1-4, 2015
- (2014-present) Appointed: National Committee Member by the U. S. National Academy of Sciences and the National Research Council as a member of the U. S. National Committee for Theoretical and Applied Mechanics (USNCTAM).
- (2014-2015) Appointed: Committee Member, Lawrence Livermore National Laboratory (LLNL) 2014 Engineering Directorate Review Committee (DRC).
- (2014-present) Appointed: Committee Member, UC-wide external advisory board for the San Diego Supercomputing Center.
- (2014) Appointed: Judge for the Big Ideas Proposal Competition. Blum Center for Developing Economies, UC Berkeley (11/2014)
- (2014) Appointed: Judge for the Berkeley Energy Resources Collaborative (BERC) Innovation Expo. (10/16/2014)
- (2013) Appointed: Panelist for the California Student Sustainability Coalition Convergence Workshop (4/27/2013)
- (2012) Appointed: Judge for robot building for the Pioneers in Engineering competition at the Lawrence Hall of Science (for Bay Area High Schools).
- (2012-present) Appointed: Advisory Board to the Deep Green Alliance on the Folding Water Initiative for the San Francisco Bay: <http://www.dgda.com/>
- (2012-present) Appointed: Advisory board member for Center for Simulation, Visualization and Real Time Computing (SiViRT), University of Texas, San Antonio.
- (2011-present) Appointed: LSU Mechanical Engineering Department Industrial Advisory Board.
- (2011) Appointed: Judge for the best paper of the year (by a junior researcher) for the journal Computers and Structures
- (2009-present) Appointed: Advisory Board for the International Graduate School for Multiscale Mechanics for Interface Coupling (MUSIC), University of Hannover, Germany
- (2009-2012) Appointed: Scientific Organizing Committee The European Congress on Computational Methods in Applied Sciences and Engineering, Vienna, September 10-14, 2012.
- (2002-2004) Appointed: NPACI/NSF-National Partnership for Advanced Computing Infrastructure Allocations Committee
- Proposal/panel reviewer for: Dutch government Technology Foundation STW(2016), Canadian National Science Foundation (NSERC, 2015), National Science Foundation (for Computational and Data-Enabled Science and Engineering in Engineering, 2014), Swiss National Science Foundation (2013), European Research Council (2007-present), National Science Foundation (Regular panels and Graduate Research Fellowship Program) (2008-2010), Army Research Office (2008, 2009), Air Force of Scientific Research (2008), International Multi-Conference on Engineering and Technological Innovation: IMETI (2009)

REFEREED ARCHIVAL JOURNAL PUBLICATIONS

1. Zohdi, T. I. and Meletis, E. I. (1992). On the intergranular hydrogen embrittlement mechanism of Al-Li alloys. *Scripta Metallurgica*. 26, 1615-1620.
2. Zohdi, T. I., Oden, J. T. and Rodin, G. J. (1996). Hierarchical modeling of heterogeneous bodies. *Computer Methods in Applied Mechanics and Engineering*. 138, 273-298.
3. Oden, J. T. and Zohdi, T. I. (1997). Analysis and adaptive modeling of highly heterogeneous elastic structures. *Computer Methods in Applied Mechanics and Engineering*. 148, 367-391.
4. Zohdi, T. I., Feucht, M., Gross, D. and Wriggers, P.(1998). A description of macroscopic damage via microstructural relaxation. *The International Journal of Numerical Methods in Engineering*. 43, 493-507.

5. Wriggers, P., Zavarise, G. and Zohdi, T. I. (1998). A computational study of interfacial debonding damage in fibrous composite materials. *Computational Materials Science*. 12, 39-56.
6. Zohdi, T. I. and Meletis, E. I.(1998). Calculation of hydrogen buildup in the neighborhood of intergranular cracks. *The Journal of the Mechanical Behavior of Materials*. 9, No. 1, 23-33.
7. Moes, N., Oden, J. T., and Zohdi, T. I.(1998). Investigation of the interaction of numerical error and modeling error in the Homogenized Dirichlet Projection Method. *Computer Methods in Applied Mechanics and Engineering*. 159, 79-101.
8. Zohdi, T. I. and Wriggers, P. (1999). A domain decomposition method for bodies with microstructure based upon material regularization. *The International Journal of Solids and Structures*. 36, No. 17, 2507-2526.
9. Zohdi, T. I., Hutter, K., and Wriggers, P. (1999). A technique to describe the macroscopic pressure dependence of diffusive properties of solid materials containing heterogeneities. *Computational Materials Science*. 15, 69-88.
10. Zohdi, T. I. and Wriggers, P. (1999). On the effects of microstress on macroscopic diffusion processes. *Acta Mechanica*. 136, No 1-2, 91-107.
11. Zohdi, T. I. and Wriggers, P. (2000). A computational model for interfacial damage through microstructural cohesive zone relaxation. *The International Journal of Fracture/Letters in Micromechanics*. 101 No. 3, L9-L14.
12. Zohdi, T. I. and Wriggers, P. (2000). Phenomenological modeling and numerical simulation of the environmental degradation of multiphase engineering materials. *Archive of Applied Mechanics (Ingenieur Archiv)*. 70, 47-64.
13. Zohdi, T. I. and Wriggers, P. (2000). On the sensitivity of homogenized material responses at infinitesimal and finite strains. *Communications in Numerical Methods in Engineering*. 16. 657-670.
14. Zohdi, T. I. (2000). Overall solution-difference bounds on the effects of material inhomogeneities. *The Journal of Elasticity*. 58 (3), 249-255.
15. Zohdi, T. I. (2000). Some remarks on hydrogen trapping. *The International Journal of Fracture/Letters in Micromechanics*. 106 No. 2, L9-L14.
16. Zohdi, T. I. and Wriggers, P. (2001). A model for simulating the deterioration of structural-scale material responses of microheterogeneous solids. *Computer Methods in Applied Mechanics and Engineering*. 190, 22-23, 2803-2823.
17. Zohdi, T. I. and Wriggers, P. (2001). Aspects of the computational testing of the mechanical properties of microheterogeneous material samples. *The International Journal of Numerical Methods in Engineering*. 50, 2573-2599.
18. Zohdi, T. I. and Wriggers, P. (2001). Modeling and simulation of the decohesion of particulate aggregates in a binding matrix. *Engineering Computations*. 18, 1/2, 79-95.
19. Zohdi, T. I. and Wriggers, P. (2001). A Petrov-Galerkin transformation that eliminates spurious oscillations for heterogeneous diffusion-reaction equations. *Computational Materials Science*. 21, 2, 255-260.
20. Zohdi, T. I. and Wriggers, P. (2001). Computational micro-macro material testing. *Archives of Computational Methods in Engineering*. Vol 8, 2, 131-228.
21. Zohdi, T. I., Wriggers, P. and Huet, C. (2001). A method of substructuring large-scale computational micromechanical problems. *Computer Methods in Applied Mechanics and Engineering*. 190. 43-44, 5639-5656.
22. Zohdi, T. I. (2001). Computational optimization of vortex manufacturing of advanced materials. *Computer Methods in Applied Mechanics and Engineering*. 190. 46-47, 6231-6256.
23. Zohdi, T. I. (2001). On the propagation of microscale material uncertainty in a class of hyperelastic finite deformation stored energy functions. *The International Journal of Fracture/Letters in Micromechanics*. 112, L13-L17.
24. Zohdi, T. I. (2002). An adaptive-recursive staggering strategy for simulating multifield coupled processes in microheterogeneous solids. *The International Journal of Numerical Methods in Engineering*. 53, 1511-1532.

25. Zohdi, T. I. (2002). The tailoring of microstructures for prescribed effective properties. *The International Journal of Fracture/Letters in Micromechanics*. 114, L15-L20.
26. Zohdi, T. I. (2002). Modeling and simulation of progressive penetration of multilayered ballistic fabric shielding. *Computational Mechanics*. 29, 61-67.
27. Zohdi, T. I. (2002). Simulation of time-discontinuous chemically-aided intergranular fracture. *Computational Materials Science*. 24 (4), 490-500.
28. Zohdi, T. I. and Steigmann, D. J. (2002). The toughening effect of microscopic _lament misalignment on macroscopic fabric response. *The International Journal of Fracture/Letters in Micromechanics*. 118, No. 4, L71-L76.
29. Zohdi, T. I. (2002). Incorporation of microfield distortion into rapid effective property design. *Mathematics and Mechanics of Solids*. Vol. 7, Number 3, 237-254.
30. Zohdi, T. I., Monteiro, P. J. M. and Lamour, V. (2002). Extraction of elastic moduli from granular compacts. *The International Journal of Fracture/Letters in Micromechanics*. 115, L49-L54.
31. Zohdi, T. I. (2002). Bounding envelopes in multiphase material design. *The Journal of Elasticity*. 66, 47-62.
32. Zohdi, T. I., Kachanov, M. and Sevostianov, I. (2002). On perfectly-plastic flow in porous material. *The International Journal of Plasticity*. 18, 1649-1659.
33. Zohdi, T. I. (2003). Large-scale statistical inverse computation of inelastic accretion in transient granular flows. *The International Journal of Nonlinear Mechanics*. Vol. 8, Issue 38, 1205-1219.
34. Zohdi, T. I. (2003). Genetic design of solids possessing a random-particulate microstructure. *Philosophical Transactions of the Royal Society: Mathematical, Physical and Engineering Sciences*. Vol: 361, No: 1806, 1021-1043.
35. Zohdi, T. I. (2003). On the compaction of cohesive hyperelastic granules at finite strains. *Proceedings of the Royal Society*. Vol. 454. Num. 2034, 1395-1401.
36. Zohdi, T. I. (2003). Computational design of swarms. *The International Journal of Numerical Methods in Engineering*. 57, 2205-2219.
37. Zohdi, T. I. (2003). Constrained inverse formulations in random material design. *Computer Methods in Applied Mechanics and Engineering*. 1-20. 192, 28-30, 18, 3179-3194.
38. Zohdi, T. I. (2003). On the sensitivity of a class of finite-deformation high strain-rate ballistic models to constitutive parameter uncertainty. *The International Journal of Fracture/Letters in Micromechanics*. 119, No. 2, L47-L52.
39. Zohdi, T. I. (2004). Staggering error control for a class of inelastic processes in random microheterogeneous solids. *The International Journal of Nonlinear Mechanics*. 39, 281-297.
40. Zohdi, T. I. (2004). Modeling and simulation of a class of coupled thermo-chemo-mechanical processes in multiphase solids. *Computer Methods in Applied Mechanics and Engineering*. Vol. 193/6-8 679-699.
41. Zohdi, T. I., Holzapfel, G. A. and Berger, S. A. (2004). A phenomenological model for atherosclerotic plaque growth and rupture. *The Journal of Theoretical Biology*. Vol. 227, Issue 3, pp. 437-443.
42. Zohdi, T. I. (2004). Modeling and direct simulation of near-field granular flows. *The International Journal of Solids and Structures*. Vol 42/2 pp 539-564.
43. Zohdi, T. I. (2004). A computational framework for agglomeration in thermo-chemically reacting granular flows. *Proceedings of the Royal Society*. Vol. 460. Num. 2052, 3421-3445.
44. Zohdi, T. I. (2005). Statistical ensemble error bounds for homogenized microheterogeneous solids. *Journal of Applied Mathematics and Physics*. (Zeitschrift für Angewandte Mathematik und Physik). Volume 56, Number 3. 497-515.
45. Zohdi, T. I. (2005). Charge-induced clustering in multifield particulate flow *The International Journal of Numerical Methods in Engineering*. Volume 62, Issue 7, Pages 870-898
46. Temizer, I. and Zohdi, T. I. (2005). Fragmentation and agglomeration in microscale granular flows. *The International Journal of Fracture/Letters in Micromechanics*. Vol. 131, L37-L44.
47. Zohdi, T. I. and Kachanov, M. (2005). A note on the micromechanics of plastic yield of porous solids *The International Journal of Fracture/Letters in Micromechanics*. Vol. 133, L31-L35.
48. Zohdi, T. I. (2005). A simple model for shear stress mediated lumen reduction in blood vessels.

- Biomechanics and Modeling in Mechanobiology. Volume 4, Number 1, p57 - 61.
49. Zohdi, T. I. and Szeri, A. J. (2005). Fatigue of kidney stones with heterogeneous microstructure subjected to shock wave lithotripsy. *Journal of Biomedical Materials Research: Part B – Applied Biomaterials*. Volume 75B, Issue 2, Date: November 2005, Pages: 351-358.
 50. Zohdi, T. I. and Powell, D. (2006). Multiscale construction and large-scale simulation of structural fabric undergoing ballistic impact. *Computer Methods in Applied Mechanics and Engineering*. Volume 195, 94-109.
 51. Zohdi, T. I. (2006). On the optical thickness of disordered particulate media. *Mechanics of Materials*. Volume 38, 969-981.
 52. Zohdi, T. I. (2006). Uncertainty growth in hypo-elastic material models. *Mathematics and Mechanics of Solids*. Vol 11., Num. 6, 555-562.
 53. Zohdi, T. I. and Kuypers, F. A. (2006). Modeling and rapid simulation of multiple red blood cell light scattering. *Proceedings of the Royal Society Interface*. Volume 3, Number 11 Pages 823-831.
 54. Zohdi, T. I. (2006). Computation of the coupled thermo-optical scattering properties of random particulate systems. *Computer Methods in Applied Mechanics and Engineering*. Volume 195, 5813-5830.
 55. Temizer, I. and Zohdi, T. I. (2007). A numerical method for homogenization in non-linear elasticity. *Computational Mechanics*. Volume 40, Number 2, 281-298.
 56. Zohdi, T. I. (2007) P-wave induced energy and damage distribution in agglomerated granules Modelling and simulation in materials science and engineering. 15, S435-S448.
 57. Zohdi, T. I. (2007). A computational framework for network modeling of fibrous biological tissue deformation and rupture. *Computer Methods in Applied Mechanics and Engineering*. Volume 196, 2972-2980.
 58. Zohdi, T. I. (2007). Computation of strongly coupled multifield interaction in particle-fluid systems. *Computer Methods in Applied Mechanics and Engineering*. Volume 196, 3927-3950.
 59. Zohdi, T. I. (2007). Particle collision and adhesion under the influence of near-fields. *Journal of Mechanics of Materials and Structures*. Volume 2, No. 6, 1011-1018
 60. Dirksen, F. and Zohdi, T. I. (2007) On effective energy reflectance of particulate materials. *The International Journal of Fracture/Letters in Fracture and Micromechanics*. 145: 341-347.
 61. Arbelaez, D., Zohdi, T. I. and Dornfeld, D. (2008) Modeling and Simulation of Material Removal with Particulate Flow. *Computational Mechanics*. Volume 42, 749-759.
 62. Sevostianov, I, Kachanov, M., and Zohdi, T. I. (2008). On computation of the compliance and stiffness contribution tensors of inhomogeneities of non-ellipsoidal shapes. *International Journal of Solids and Structures*. 45 (16), 4375-4383.
 63. Zohdi, T. I. (2008) On the computation of the coupled thermo-electromagnetic response of continua with particulate microstructure. *The International Journal of Numerical Methods in Engineering*. 76, 1250-1279.
 64. Arbelaez, D. and Zohdi, T. I. (2009) Uncertainty quantification of the subsurface failure of composites with nanoscale constituents. *Journal of Computational and Theoretical Nanoscience*. 6, 2307-2316.
 65. Zohdi, T. I. (2009) Mechanistic modeling of swarms. *Computer Methods in Applied Mechanics and Engineering*. Volume 198, Issues 21-26, Pages 2039-2051.
 66. Powell, D. and Zohdi, T. I. (2009) Attachment mode performance of network-modeled ballistic fabric shielding. *Composites Part B: Engineering*. Volume 40, Issue 6, Pages 451-460.
 67. Arbelaez, D., Zohdi, T. I. and Dornfeld, D. (2009) On impinging near-field granular jets. *The International Journal of Numerical Methods in Engineering*. Volume 80, Issue 6, pp. 815-845.
 68. Powell, D. and Zohdi, T. I. (2009) A note on flaw-induced integrity reduction of structural fabric. *The International Journal of Fracture/Letters in Micromechanics*. Vol. 158, L89-L96.
 69. Zohdi, T. I. (2009) Micro_fibril-based estimates of the ballistic limit of multilayered fabric shielding. *The International Journal of Fracture/Letters in Micromechanics*. Vol. 158, L81-L88.
 70. Zohdi, T. I. (2009) Dielectric breakdown elimination via particulate additives. *The International Journal of Fracture/Letters in Micromechanics*. Volume 159, L247-L253.
 71. Zohdi, T. I. (2010) Charged wall-growth in channel-flow. *The International Journal of Engineering Science*. 48, 1520.

72. Choi, S., Park, I., Hao, Z., Holman, H. Y., Pisano, A. P. and Zohdi, T. I. (2010). Ultra-fast self-assembly of micro-scale particles by open channel flow. *Langmuir*. 26 (7), pp 4661-4667.
73. Zohdi, T. I. (2010) On the dynamics of charged electromagnetic particulate jets. *Archives of Computational Methods in Engineering*. Volume 17, Number 2, 109-135
74. Zohdi, T. I. (2010) Localized electrical current propagation in stochastically perturbed atmospheres. *The International Journal of Numerical Methods in Engineering*. Volume 84, 27-46.
75. Wenk, J. F., Papadopoulos, P., Zohdi, T. I. (2010) Numerical Modeling of Stress in Stenotic Arteries with Microcalcifications: A Micromechanical Approximation. *Journal of Biomechanical Engineering*. 132, 091011-1-11.
76. Zohdi, T. I. (2010) High-speed impact with electromagnetically sensitive fabric and induced projectile spin. *Computational Mechanics*. 46. 399-415.
77. Zohdi, T. I., Kuypers, F. A. and Lee, W. C. (2010) Estimation of Red Blood Cell volume fraction from overall permittivity measurement. *The International Journal of Engineering Science*. 48, 1681-1691.
78. Choi, S., Stassi, S., Pisano, A. P. and Zohdi, T. I. (2010) Coffee-Ring Effect-Based Three Dimensional Patterning of Micro, Nanoparticle Assembly with a Single Droplet. *Langmuir*. 26 (14), pp 11690-11698.
79. Zohdi, T. I. (2010) Simulation of coupled microscale multiphysical-fields in particulate-doped dielectrics with staggered adaptive FDTD. *Computer Methods in Applied Mechanics and Engineering*. Volume 199, 79-101.
80. Zohdi, T. I. (2011) Dynamics of clusters of charged particulates in electromagnetic fields. *The International Journal of Numerical Methods in Engineering*. 85, 1140-1159.
81. Zohdi, T. I. (2011) Joule-heating field phase-amplification in particulate-doped dielectrics. *The International Journal of Engineering Science*. 49, 30-40.
82. Zohdi, T. I. (2011) Electromagnetically-induced deformation of functionalized fabric. *The Journal of Elasticity*. Volume 105, Numbers 1-2. 381-398.
83. Mseis, G. and Zohdi, T. I. (2011) Micromechanical modeling and numerical simulation of chainmail armor. *The International Journal of Fracture/Letters in Micromechanics*. Volume 170, L183-L190.
84. Demko, M., Choi, S. Zohdi, T. I. and Pisano, A. P. (2012) High resolution patterning of nanoparticles by evaporative self-assembly enabled by in-situ creation and mechanical lift-off of a polymer template. *Applied Physics Letters*. 99, 253102-1-253102-3.
85. Choi, S., Jamshidi, A., Seok, T. J., Zohdi, T. I., Wu., M. C., and Pisano, A. P. (2012) Fast, High-throughput creation of size-tunable micro, nanoparticle clusters via evaporative self-assembly in picoliter-scale droplets of particle suspension. *Langmuir*. 28(6):3102-11.
86. Zohdi, T. I. (2012) Estimation of electrical-heating load-shares for sintering of powder mixtures. *Proceedings of the Royal Society*. Vol. 468, 2174-2190.
87. Klepach, D., Lee, L. C, Wenk, J., Ratcliffe, M., Zohdi, T. I., Navia, J., Kassab, G., Kuhl, E. and Guccione, J. M. (2012). Growth and remodeling of the left ventricle: a case study of myocardial infarction and surgical ventricular restoration. *Mechanics Research Communications*. 42, 134-141.
88. Zohdi, T. I. (2012) Modeling and simulation of the optical response rod-functionalized reflective surfaces. *Computational Mechanics*. Volume 50, Issue 2, pp 257-268.
89. Zohdi, T. I. (2012) On the relationship between the H-Tensor and the concentration tensor and their bounds. *The International Journal of Fracture/Letters in Micromechanics*. Volume 177, Issue 1, pp 89-95.
90. Zohdi, T. I. (2012) Modeling and simulation of electrification delivery in functionalized textiles in electromagnetic fields. *Computer Methods in Applied Mechanics and Engineering*. Volumes 245-246, Pages 206-216.
91. Zohdi, T. I. (2013) On the reduction of heat generation in lubricants using microscale additives. *The International Journal of Engineering Science*. Volume 62, Pages 84-89.
92. Zohdi, T. I. (2013) Electromagnetically-induced vibration in particulate-doped materials. *ASME Journal of Vibration and Acoustics*. Volume 135(3), doi:10.1115/1.4023251.
93. Zohdi, T. I. (2013) Numerical simulation of charged particulate cluster-droplet impact on electrified surfaces. *Journal of Computational Physics*. 233, 509-526.
94. Zohdi, T. I. (2013) On inducing compressive residual stress in microscale print-lines for flexible

- electronics. *The International Journal of Engineering Science*. Volume 62, Pages 157-164.
95. Zohdi, T. I. (2013) Variational Bounds for Thermal Fields in Media with Heterogeneous Microstructure. *Mathematics and Mechanics of Solids*. vol. 19, no. 4, 434-439.
96. Dirksen, F., Anselmann, M., Zohdi, T. I. and Lammering, R. (2013). Incorporation of flexural hinge fatigue-life cycle criteria into the topological design of compliant small-scale devices. *Elsevier-Precision Engineering*. Volume 37, Issue 3, July 2013, Pages 531-541.
97. Zohdi, T. I. (2014) Modeling electrical power absorption and thermally-induced biological tissue damage. *Biomechanics and Modeling in Mechanobiology*. 13:115-121.
98. Lee, L. C., Wenk, J. F., Zhong, L., Klepach, D., Zhang, Z., Ge, L., Ratcliffe, M. B., Navia, J. L., Zohdi, T. I., Kassab, G. S. and Guccione, J. M. (2013). Analysis of Patient-specific Surgical Ventricular Restoration - Importance of an Ellipsoid Left Ventricular Geometry for Diastolic and Systolic Function. *J Appl Physiol* 115: 136144.
99. Choi, S., Pisano, A. P. and Zohdi, T. I. (2013) An Analysis of Evaporative Self-Assembly of Micro Particles in Printed Picoliter Suspension Droplets. *Journal of Thin Solid Films*. Volume 537, 30, Pages 180-189.
100. Zohdi, T. I. (2013). Rapid simulation of laser processing of discrete particulate materials. *Archives of Computational Methods in Engineering*. 20: 309-325.
101. Zohdi, T. I. (2014). A direct particle-based computational framework for electrically-enhanced thermo-mechanical sintering of powdered materials. *Mathematics and Mechanics of Solids*. vol. 19, no. 1, 93-113.
102. Klepach, D. and Zohdi, T. I. (2014) Modeling and simulation of deformation-dependent diffusion in composite media. *Composites Part B: Engineering*. Volume 56, 413-423
103. Zohdi, T. I. (2014). On cross-correlation between thermal gradients and electric fields. *The International Journal of Engineering Science*. Volume 74, 143-150.
104. Zohdi, T. I. (2014). Mechanically-driven accumulation of microscale material at coupled solid-fluid interfaces in biological channels. *Proceedings of the Royal Society Interface*. 11, 20130922.
105. Mukherjee, D. and Zohdi, T. I. (2014). Electromagnetic control of charged particulate spray systems - Models for planning the spray gun operations. *Computer-Aided Design*. Volume - 46. 211 - 215.
106. Gutierrez, M. P. and Zohdi, T. I. (2014). Effective Reflectivity and Heat Generation in Sucrose and PMMA Mixtures. *Energy and Buildings*. 71, 95-103.
107. Zohdi, T. I. (2014). A computational modeling framework for heat transfer processes in laser induced dermal tissue removal *Computational Mechanics in Engineering and Sciences*. Vol. 98, No. 3, pp. 261-277.
108. Campello, E. M. B. and Zohdi, T. I. (2014). A computational framework for simulation of the delivery of substances into cells. *International Journal for Numerical Methods in Biomedical Engineering*. Volume 30, Issue 11, pages 11321152.
109. Campello, E. M. B. and Zohdi, T. I. (2014). Design evaluation of a particle bombardment system to deliver substances into cells. *Computational Mechanics in Engineering and Sciences*. Vol. 98, No. 2, pp. 221-245.
110. Zohdi, T. I. (2014) Additive particle deposition and selective laser processing-a computational manufacturing framework. *Computational Mechanics*. Vol 54, 171-191.
111. Zohdi, T. I. (2014) Embedded electromagnetically sensitive particle motion in functionalized fluids. *Computational Particle Mechanics*. Vol 1, 27-45.
112. Zohdi, T. I. (2014). Impact and penetration resistance of network models of coated lightweight fabric shielding. *GAMM-Mitteilungen*. Volume 37, Issue 1, pages 124150.
113. Mukherjee, D., Zaky, Z., Zohdi, T. I., Salama, A., and Sun, S. (2015). Investigation of guided particle transport for noninvasive healing of damaged piping system using electro-magnetomechanical methods. *Journal of Society of Petroleum Engineers Journal*. SPE 169639, pp. 1-12
114. Ahuja, A., Mosalam, K. and Zohdi, T. I. (2015). Computational modeling of translucent concrete. *ASCE Journal of Architectural Engineering*. 21(2), B4014008
115. Zohdi, T. I. (2015). Modeling and simulation of coupled cell proliferation and regulation in heterogeneous tissue. *Annals of Biomedical Engineering*. 43(7):1666-79.
116. Zohdi, T. I. (2015). Rapid computation of statistically-stable particle/feature ratios for consistent

substrate stresses in printed flexible electronics. *Journal of Manufacturing Science and Engineering, ASME*. MANU-14-1476 doi: 10.1115/1.4029327.

117. Zohdi, T. I. (2015). A computational modelling framework for high-frequency particulate obscurant cloud performance. *The International Journal of Engineering Science*. 89, 75-85.

118. Mukherjee, D. and Zohdi, T. I. (2015). A Discrete Element Based Simulation Framework to Investigate Particulate Spray Deposition Processes. *Journal of Computational Physics*. Volume 290, 298-317.

119. Mukherjee, D. and Zohdi, T. I. (2015). Computational Modeling of the Dynamics and Interference Effects of an Erosive Granular Jet Impacting a Porous, Compliant Surface. *Granular Matter*. Volume 17, 231-252.

120. Zohdi, T. I. (2015). On necessary pumping pressures for industrial process-driven particle-laden fluid flows. *Journal of Manufacturing Science and Engineering, ASME*.doi:10.1115/1.4030620

121. Zohdi, T. I. (2015). On the thermal response of a laser-irradiated powder particle in additive manufacturing. *CIRP Journal of Manufacturing Science and Technology*. Volume 10, August 2015, Pages 7783

122. Zohdi, T. I. (2015). Modeling and simulation of the post-impact trajectories of particles in oblique precision shot-peening. *Computational Particle Mechanics*. DOI 10.1007/s40571-015-0048-5

123. Zohdi, T. I. (2015). Modeling and simulation of cooling-induced residual stresses in heated particulate mixture depositions. *Computational Mechanics*. Volume 56, 613-630.

124. Zohdi, T. I. (2015). Modeling and efficient simulation of the deposition of particulate flows onto compliant substrates. *The International Journal of Engineering Science*. Volume 99, 74-91. doi:10.1016/j.ijengsci.2015.10.012

125. Zohdi, T. I. (2015). Modeling and simulation of laser processing of particulate-functionalized materials. *Archives of Computational Methods in Engineering*. 10.1007/s11831-015-9160-1, 1-25.

126. Casas, G., Mukherjee, D., Celigueta, M. A., Zohdi, T. I. and Onate, E. (2015). A modular, partitioned, discrete element framework for industrial grain distribution systems with rotating machinery. *Computational Particle Mechanics*. DOI 10.1007/s40571-015-0089-9.

127. Zohdi, T. I. (2016). A note on firework blasts and qualitative parameter dependency. *Proceedings of the Royal Society*. DOI: 10.1098/rspa.2015.0720

128. Zohdi, T. I. (2016). A discrete element and ray framework for rapid simulation of acoustical dispersion of microscale particulate agglomerations. *Computational Mechanics*. Volume 57, Issue 3, pp 465-482

129. Patel, B. and Zohdi, T. I. (2016). Numerical estimation of effective electromagnetic properties for design of particulate composites. *Materials and Design*. Volume 94, Pages 546-553

130. Ganeriwala, R. and Zohdi, T. I. (2016). A coupled discrete element finite difference model of selective laser sintering. *Granular Matter*. 18:21, DOI 10.1007/s10035-016-0626-0

131. Queiruga, A. and Zohdi, T. I. (2016). Microscale Modeling of Effective Mechanical and Electrical Properties of Textiles. *The International Journal for Numerical Methods in Engineering*. DOI: 10.1002/nme.5268

132. Queiruga, A. and Zohdi, T. I. (2016). Formulation and Analysis of a Fully-Coupled Dynamically Deforming Electromagnetic Wire. *Computer Methods in Applied Mechanics and Engineering*. Volume 305, Pages 292-315.

133. Ogawa, Y., Nakamoto, K., Ota, M., Fukaya, T., Russell, M., Zohdi, T. I., Yamazaki, K. and Aoyama, H. (2016). A study on machining of binder-less polycrystalline diamond by femtosecond pulsed laser for fabrication of micro milling tools. *CIRP Annals - Manufacturing Technology*. doi:10.1016/j.cirp.2016.04.081

134. Zohdi, T. I. (2016). On progressive blast envelope evolution of charged particles in electromagnetic fields. *Computer Methods in Applied Mechanics and Engineering*. doi:10.1016/j.cma.2016.05.003

135. Zohdi, T. I. (2016). An agent-based computational framework for simulation of competing hostile planet-wide populations. *Computer Methods in Applied Mechanics and Engineering*. doi:10.1016/j.cma.2016.04.032

136. Zohdi, T. I. (2016). On high-frequency radiation scattering sensitivity to surface roughness in particulate media. *Computational Particle Mechanics*. DOI 10.1007/s40571-016-0118-3.

137. Shaul, S. and Zohdi, T. I. (2016). Semi-analytical solution for laminar particle-laden flow in curved

- lumina with permeable walls. *Mechanics Research Communications*.76 (2016) 32–40
138. Zohdi, T. I. (2016). An explicit macro-micro phase-averaged stress correlation for particle enhanced composite materials in loaded structures. *International Journal of Engineering Science*. DOI: 10.1016/j.ijengsci.2016.09.005
139. Mueller, R., Sabel, M., Sator, C. and Zohdi, T. I. (2017). Application of the particle finite element method in machining simulation of the alpha-shape method in the context of strength of materials. *ASME Journal of Computing and Information Science in Engineering*. 011002. Paper No: JCISE-15-1299; doi: 10.1115/1.4034434
140. Zohdi, T. I. (2017). On the biomechanical analysis of the calories expended in a straight boxing jab. *Proceedings of the Royal Society Interface*. DOI: <http://dx.doi.org/10.1098/rsif.2017.0153>
141. Zohdi, T. I. (2017). Computational modeling of electrically-driven deposition of ionized polydisperse particulate powder mixtures in advanced manufacturing processes. *Journal of Computational Physics* 340 309–329
142. Zohdi, T. I. (2017) Modeling and rapid simulation of the propagation and branching of electrical discharges in gaseous atmospheres. *Computational Mechanics* DOI: 10.1007/s00466-017-1414-3
143. Zohdi, T. I. and Cabalo, J. (2017) On the thermomechanics and footprint of fragmenting blasts. *The International Journal of Engineering Science*. Volume 118, Pages 28–39
144. Zohdi, T. I. (accepted). On the dynamics and breakup of quadcopters using a discrete element method framework. *Computer Methods in Applied Mechanics and Engineering*.
145. Schaler, E. W., Zohdi, T. I. and Fearing, R. S. (submitted). Flexible, Mass-Produced, Repulsive-Force Electrostatic Actuators.
146. Abali, B. E. and Zohdi, T. I. (submitted) A comparative analysis of reduced-order integrated circuit simulators and direct numerical simulation.
147. Zohdi, T. I. and Krone, R. (submitted) Estimates on the acoustical stimulation and heating of multiphase biotissue.
148. Zohdi, T. I. and B. E. Abali (submitted) Modeling of power transmission and stress grading for corona protection based on a reduced order model in 1D and its comparison to a transient coupled FEM simulation in 3D.
149. Fernandez-Gutierrez, D., Souto-Iglesias, A. and Zohdi, T. I. (submitted). A hybrid Lagrangian Voronoi-SPH scheme.

BOOKS

1. Zohdi, T. I. and Wriggers, P. (Book, 2005, 2008) Introduction to computational micromechanics. Second Reprinting (Peer Reviewed). Springer-Verlag:

<http://www.bookmetrix.com/detail/book/806553f6-2a54-4071-a34d-f2d58bb5713f#downloads>

2. Zohdi, T. I. (Book, (2007)) Introduction to the modeling and simulation of particulate flows. (Peer Reviewed). SIAM (Society for Industrial and Applied Mathematics).
3. Zohdi, T. I. (Book, 2012) Electromagnetic properties of multiphase dielectrics. A primer on modeling, theory and computation (Peer Reviewed). Springer-Verlag.

<http://www.bookmetrix.com/detail/book/95d422c1-24bf-4bcc-aeb0-75c8312a7658#downloads>

4. Zohdi, T. I. (Book, 2012) Dynamics of charged particulate systems. Modeling, theory and computation (Peer Reviewed). Springer-Verlag.

<http://www.bookmetrix.com/detail/book/ddea4513-a43e-43be-864b-3d830ff3f795#downloads>

5. Zohdi, T. I. (Book, 2014) A finite element primer for beginners. (Peer Reviewed). Springer-Verlag.

<http://www.bookmetrix.com/detail/book/95d422c1-24bf-4bcc-aeb0-75c8312a7658#downloads>

6. Zohdi, T. I. (Book, in press). Modeling and simulation of functionalized materials for additive manufacturing and 3D printing: continuous and discrete media (Peer Reviewed). Springer-Verlag.

7. Zohdi, T. I. (Book, in press) A finite element primer for beginners-extended version including sample tests and projects. Second Edition. (Peer Reviewed). Springer-Verlag.

BOOK, HANDBOOK AND ENCYCLOPEDIA CHAPTERS

1. Zohdi, T. I. (Encyclopedia chapter, 2004) Homogenization methods and multiscale modeling: linear problems (Peer Reviewed). Encyclopedia of Computational Mechanics. E. Stein, R. de Borst and T. Hughes Editors. John Wiley.

2. Zohdi, T. I. (Handbook chapter, 2006) An introduction to the finite element method (Peer Reviewed). Mechanical Engineer's Handbook, 3rd edition. John Wiley.

3. Zohdi, T. I. (Book chapter, 2011) On the coexistence of intermeshed hostile populations (Peer Reviewed). Chapter 37 in the book: Recent Developments and Innovative Applications in Computational Mechanics. Springer-Verlag, pp 331-340.

4. Zohdi, T. I. and Zohdi, M. E. (Handbook chapter 2013) Analytical tools for estimating particulate composite material properties and their development (Peer Reviewed). Engineering Measurements Encyclopedia, John Wiley.

5. Zohdi, T. I. (Handbook chapter 2013) Basic microstructure-macroproperty calculations (Peer Reviewed). Springer.

6. Zohdi, T. I. (Book chapter 2013) Modeling and rapid simulation of high-frequency scattering responses of cellular groups (Peer Reviewed). John Wiley.

7. Zohdi, T. I. (Encyclopedia chapter 2013) Linear Elastostatics (Peer Reviewed). Encyclopedia of Applied and Computational Mathematics. Springer.

8. Zohdi, T. I. (Encyclopedia chapter 2013) Particulate Composite Media (Peer Reviewed). Encyclopedia of Applied and Computational Mathematics. Springer.

9. Zohdi, T. I. (Encyclopedia chapter 2013) Particulate Flows (Peer Reviewed). Encyclopedia of Applied and Computational Mathematics. Springer.

10. Zohdi, T. I. (Book chapter, 2014) Reduced Order Network Models for Biological Scaffolding (Peer Reviewed). Multiscale Modeling in Biomechanics and Mechanobiology, W. Hwang, E. Kuhl and S. De Editors. Springer.

11. Zohdi, T. I. (Encyclopedia chapter, 2015) Homogenization methods and multiscale modeling: linear problems. 2nd Edition (Peer Reviewed). Encyclopedia of Computational Mechanics. E. Stein, R. de Borst and T. Hughes Editors. John Wiley.

PATENTS

1. Zohdi, T. I. (2010). US Application No. 61/313,058, Berkeley Ref. No. B10{093; Docket No. BERK-133PRV: Projectile Resistive Fabrics, filed April 7, 2010.

2. Zohdi, T. I. (2012). US Application No. 61/652,083, Berkeley Ref. BK-2012-126-1: Electromechanical Interior Coating of Channels, filed May 25, 2012.

3. Zohdi, T. I. and Mosalam, K. (2015). UC case number BK-2015-101. Flexible Electromagnetically-

Actuated Optical Micro Light Pipes, filed January 12, 2015.

4. Zohdi, T. I. (2015). UC case number BK-2015-184. Casting Void Elimination Via Magnetic Control of Added Particles, filed June 15, 2015.

NATIONAL ACADEMIES REPORT

Zohdi, T. I. and Dornfeld, D. A. (2015). US National Academies Report: Future Synergy between Computational Mechanics and Advanced Additive Manufacturing:
http://sites.nationalacademies.org/cs/groups/pgasite/documents/webpage/pga_166813.pdf

POPULAR MAGAZINE ARTICLES

1. Zohdi, T. I. (2002). Manufacturing and processing of new particulate-based materials: multiphysics, modeling and simulation (Cover Article). Bulletin of the German Association for Computational Mechanics. Volume 1. <http://cmrl.berkeley.edu/Zohdipaper/ZOHDI-GACM Report No1.pdf>
2. Zohdi, T. I. (2014). Manufacturing and processing of new particulate-based materials: multiphysics, modeling and simulation (Cover Article). Bulletin of the International Association for Computational Mechanics (IACM Expressions), <http://iacm.info/vpage/1/0/IACM-Expressions/34>
3. Farrell, L. (2016). Science is a Blast (profile of Zohdi research). Sciencenode science outlet. <https://sciencenode.org/feature/big-bang-theory.php>

COURSES TAUGHT:

1. Modeling and Simulation of Advanced Manufacturing Processes (grad). U. C. Berkeley. (Spring 2013, Spring 2014, Spring 2015, Spring 2016;)
2. Computational design of multifunctional/multiphysical composite materials (grad). U. C. Berkeley. (Spring 2012)
3. Finite element analysis (grad.). U. C. Berkeley. (Fall 2002, Fall 2003, Fall 2004, Fall 2006, Fall 2007, Fall 2008, Fall 2011, Fall 2012, Fall 2014);
4. Mechanical behavior of engineering materials (grad.). U. C. Berkeley. (Fall 2005, Fall 2008, Fall 2009, Fall 2010);
5. Multiscale modeling and design of new materials (grad). U. C. Berkeley. (Fall 2001, Spring 2004, Spring 2008);
6. Continuum mechanics (grad.). U. Hannover. In English and German. (Summer 2000, Winter 2000);
7. Plasticity theory (grad.). U. Hannover. In English and German. (Summer 2000);
8. Elasticity theory (grad.). U. Hannover. In English and German. (Winter 1999, Winter 2000);
9. Micromechanics (grad.). Technische Universitaet Darmstadt. In English and German. (Winter 1998);
10. Finite element analysis (undergrad.). U. C. Berkeley. (Spring 2006, Spring 2008, Spring 2011, Spring 2013);
11. Dynamics (undergrad.). U. C. Berkeley. (Spring 2002, Fall 2002, Spring 2003, Fall 2015);
12. Mechanical behavior of engineering materials (undergrad.). U. C. Berkeley. (Spring 2004, Spring 2005, Spring 2007);
13. Introduction to solid mechanics (undergrad.). U. C. Berkeley. (Spring 2009, 2010).

OVERALL STUDENT SUPERVISION/MENTORSHIP: Since arriving at UC Berkeley in July of 2001:

1. Graduated/supervised Ph. D. students (25 students),
2. Ph. D. students currently supervised (12 students),
3. Service as second or third reader on doctoral theses (55 students),
4. Service performed as an oral examiner for doctoral candidates (122 students),

5. Graduated/supervised Masters (Plan I and Plan II) students (25 students),
6. Masters theses (Plan I and Plan II) and projects as second or third reader (41 students),
7. Service as an oral examiner for 5th Year's Masters candidates (8 students),
8. Service as Thesis Chairperson for the Prof. Master's of Eng. Degree (42 students)
9. Service as a second reader (thesis committee) for Prof. Master's of Eng. Degree (19 students)
10. Post-doctoral scholars supervised (10 scholars),
11. Mentor for Regents', Chancellor's and CAL Opportunity Scholars: 28

GRADUATED PH. D. STUDENTS (26 STUDENTS):

1. Ilker Temizer (MS 2003, Ph. D.(ME) 12/2005): associate prof. at Bilkent University, Turkey.
2. David Powell (MS 2005, Ph. D.(ME) 12/2007): Baker Engineering and Risk Consultants.
3. Diego Arbelaez (MS 2005, Ph. D.(ME) 5/2008, co-sup. with D. Dornfeld): staff sci. LBNL
4. Jonathan Wenk (MS 2005, PhD.(ME)5/2008, co-sup P. Papadopoulos): asst. prof. U. Kentucky
5. George Mseis (Ph. D. (ME) 12/2010): engineer at Sunpower Corp. Ca.
6. Tim Kostka (MS 2008, Ph. D. (ME) 5/2010): staff scientist Sandia National Labs.
7. Lik Chuan Lee (Ph. D. (ME) 12/2010): assistant professor at Michigan State University
8. Doron Klepach (Ph. D. (ME) 12/2010): assistant professor at ORT Braude College, Israel.
9. Ryan Krone (Ph. D. (ME) 12/2010, co-supervised with D. Steigmann): Medtronic Corp., Ca.
10. Sun Choi (Ph. D. (ME), 5/2012, co-sup. with A. Pisano): senior res. Scientist, KIST, Korea
11. Brett Collins (Ph. D. (ME) 5/2013): staff scientist at Sandia National Labs.
12. Hiroyuki Minaki (Ph. D. (ME), 5/2013), co-sup, S. Li): Bridgestone Tire Corp.,Japan.
13. Debanjan Mukherjee (Ph. D. (ME), 8/2013): post-doc at UC Berkeley.
14. Peter Minor (Ph. D. (ME), 12/2013), co-sup P. Wright): co-founder of The Foundry-CITRIS
15. Alejandro Queiruga (MS 2013, Ph. D. (ME) 5/2015,): staff sci. LBNL
16. Bhavesh Patel (MS 2013, Ph. D. (ME) 5/2015): post-doc, 3DT Holdings-Med. Res. S.Diego.
17. Rishi Ganeriwala (MS 2013, Ph. D. (ME), 10/2015): staff sci. LLNL
18. Aashish Ahuja (PhD (ME)12/2015,co-sup, K. Mosalam): p-doc,3DT Hold-Med. Res. S.Diego
19. Daniel Driver (MS 2013, Ph. D. (ME), 12/2015): staff sci. LLNL
20. John C. Stevens (MS 2012,Ph.D.(ME), 12/2015): Staff Scientist at E3
21. Maria Pace (Ph. D. (AS and T), 1/2016, co-sup, A. Pisano). Sen. Eng. At YourMechanic Co.
22. Raunak Bhinge (Ph.D (ME)), 2016; Bay Area Founder of startup-Infinite Uptime
23. Seyed Hossein Hashemi Ghermezi (Ph. D, (ME)) 12/2016; Engineer at Lam Research
24. Anju Toor (Ph.D (ME), 5/2017 co-sup. A. Pisano), Post-doc at LBNL
25. Lee M. Clemon (Ph.D (ME), 5/2017); Staff Scientist at Sandia Nat. Labs
26. Matthew Kury (MS 2014, Ph.D (ME), 2017): Post-Doc at UC Berkeley

PH. D. STUDENTS CURRENTLY SUPERVISED (12 STUDENTS):

1. Chang Yoon Park (Doctoral (ME), 2011-present): working on manufacturing infiltration
2. Marc Russell (Doctoral (ME), 2013-present): working on multiphysics models in materials.
3. Zeyad Zaky (Doctoral (ME), 2013-present): electromagnetic healing of piping systems.
4. Brett Kelly (Doctoral (ME), 2014-present): co-sup with H. Taylor, working on imprint-litho.
5. Santiago Miret (Doctoral (MSE), 2014-present): working on CMC design
6. Erden Yildizdag (Doctoral (ME), 2014-present): co-sup with K. Mosalam, working on 3DP
7. Shanna Tune (Doctoral (ME), 2015-present): working on 3DP
8. David F. Gutierrez (Doctoral (ME), 2015-present): working on particle-fluid interaction
9. Dong Hoon Kim (Doctoral (ME), 2016-present): working on particle methods
10. Young Kyu Kim (Doctoral (ME), 2016-present): working on particle methods
11. Maxwell Micali (Doctoral (ME), 2016-present): working on tool-path planning in add. man.

12. Nicolas Castrillon (Doctoral (ME), 2017-present): working on additive manufacturing

DOCTORAL THESES COMPLETED (OR ONGOING) AS SECOND OR THIRD READER (55 STUDENTS): F. Hamed (ME, 2003), X. Shen (ME, 2004), P. Tsourkas (ME, 2004), Y. Gao (MsE, 2006), P. H. Jing (NE, 2006), M. Jin (MsE, 2006), J. Buckley (ME, 2006), R. Sauer (CE, 2006), R. Borrelli (NE, 2006), S. Williamson-Stack (ME, 2006), J. Foulk (ME, 2007), P. Kessler (ME, 2007), P. Bhargava (ME, 4/2008), J. Ileorta (ME, 5/2008), D. Chen (ME, 8/2008), X. S. Asay-Davis (AS and T, 9/2008), M. Taylor (ME, 9/2008), S. Tripathi (ME, 10/2008), S. Shetty (ME, 12/2008), R. Cole (ME, 12/2008), R. Holtzman (CE, 5/2009), C. Huber (EPS, 5/2009), A. Vijayaraghavan (ME, 5/2009), H. Kam (EECS, 5/2009), P. Jing (NE, 5/2009), M. Koplow (ME, 10/2009), J. C. W. Yuan (MsE, 10/2009), N. Liu (ME, 6/2010), M. Barham (ME, 4/2011), Y. M. Chen (ME, 5/2011), R. Rai (ME, 12/2011), Y. Hanlumyung (MSE, 12/2011), J. Edmiston (ME, 4/2012), J. Zheng (ME, 5/2012), O. Miller (EECS, 5/2012), M. Petricic (ME, 9/2012), C. Kuhn (ME, Uni. Kaiserslautern, Germany, 12/2012), J. Kim (CEE, 5/2013), M. Laufer (NE, 5/2013), Q. Zhao (ME, 5/2013), P. Hassanzadeh (ME, 5/2013), C. Sawyer (MSE, 5/2013), J. Chien (ME, 12/2013), N. Craig (ChemE, 12/2013), G. Jannoun (CNRS, France, 9/2014), A. Gearhart (EECS 12/2014), M. Tartibi (ME, 5/2015), X. Zhou (ME, 10/2015), M. de Jong (MSE 12/2015), B. Mercer (ME, 9/2016), T. Dala (ME, 5/2017), L. Beker (ME, 5/2017), E. Van Andel (Math, 5/2017), A. Zeydabadi (ME, ongoing), D. Krumwiede (NE, ongoing), M. Sabel (ME, U. Kaiserslautern, Germany, 6/2017)

SERVICE PERFORMED AS AN ORAL EXAMINER DOCTORAL CANDIDATES (122 STUDENTS): C. Seybert (MsE, 10/2003), Y. Gao (MsE, 01/2003), S. Gupta (AS & T, 05/2003), A. Chakravartula (ME, 11/2003), M. Jin (MsE, 12/2003), J. Edd (ME, 04/2004), L. Parker (AS & T, 04/2004), J. Buckley (ME, 11/2004), B. Nadler (ME, 12/2004), X. Asay-Davis (AS & T, 12/2004), T. Li (MsE, 12/2004), R. Yuan (MsE, 12/2004), S. Tajima (ME, 01/2005), R. Sauer (CE, 01/2005), S. Shetty (ME, 4/2005), W. He (ME, 05/2005), P. Hua (NE, 05/2005), R. Borrelli (NE, 05/2005), R. Gish (ME, 08/2005), D. Jones (ME, 09/2005), S. Gupta (AS & T, 11/2005), S. Timpe (ME, 12/2005), A. Gupta (ME, 01/2006), D. Chen (ME, 02/2006), P. Bhargava (ME, 4/2006), D. Wong (ME, 04/2006), J. Foulk (ME, 04/2006), G. Bevill (ME, 04/2006), S. Eswaran (ME, 05/2006), R. Cole (ME, 05/2006), C. Sparrey (ME, 11/2006), J. C. W. Yuan (MsE, 12/2006), M. Taylor (ME, 10/2006), A. Carbonaro (ME, 12/2006), H. Zhang (ME, 04/2007), S. Tripathi (ME, 04/2007), C. Huber (EPS, 04/2007), R. Holtzman (CE, 04/2007), Y. Huang (CE, 04/2007), S. Moseley (ME, 05/2007), G. Templet (AS & T, 08/2007), A. Vijayaraghavan (ME 10/2007) L. Pan (ME, 12/2007), N. Liu (ME, 12/2007), E. Yap (Bio-eng, 1/2008), K. Mandadapu (ME, 3/2008), H. Kam (EE, 4/2008), A. Sengupta (ME, 5/2008), M. Koplow (ME, 12/2008), M. Barham (ME, 12/2008), A. Fields (ME, 4/2009), X. Yin (ME, 4/2009), H. Xu (ME, 4/2009), S. Easley (ME, 5/2009), R. Rai (ME, 5/2009), Y. M. Chen (ME, 5/2009), W. Li (ME, 8/2009), L. Croft (BioE, 10/2009), Y. Hanlumyung (MSE, 11/2009), M. Petricic (ME, 2/2010), J. Zheng (ME, 4/2010), J. Kim (CEE, 4/2010), S. Mistry (ME 11/2010), N. Wang (ME 11/2010), M. Laufer (NE 12/2010), M. Ben-Salah (ME 11/2010), Q. Zhao (ME 12/2010), A. Gilles (ME 12/2010), S. Pei (ME 4/2011), A. Sanyal (ME 4/2011), P. Brackbill (ME 4/2011), P. Hassanzadeh (ME 4/2011), C. Sherman (ME 5/2011), O. Miller (EECS 5/2011), M. Tartibi (ME 5/2011), K. Mansukhani (AS & T, 5/2011), S. Nawathe (ME 8/2011), K. Lee (ME 12/2011), J. Chien (ME, 1/2012), M. Aly Moustafa (CEE, 4/2012), S. Xiong (ME, 4/2012), A. Gearhart (EECS, 4/2012), D. Madan (ME, 5/2012), M. Wang (ME, 11/2012), F. Shi (ME, 12/2012), J. Xie (ME, 2/2013), Y. J. Lai (ME, 3/13), V. Ganapati (EECS, 5/2013), G. Vogman (AS & T, 4/2013), E. Van Andel (Math, 4/2013), Y. K. Chen (ME, 5/2013), X. Zhou (ME, 5/2013), A. R. Mendez (ME, 8/2013), S. Oh (ME, 12/2013), M. Mahdini (ME, 3/2014), S. Xin (ME, 5/2014), M. de Jong (MSE, 9/2014), J. Duarte (EECS, 5/2015), A. Toor (ME, 9/2014), M. Pace (AS & T, 2/2015), A. Zareei (ME, 8/2015), X. Shi (ME, 9/2015), D. Barth (ME, 9/2015), R. Singh (ME, 11/15), T. Dala (ME, 12/15), R. Bhinge (ME, 12/2015), Y. Liang (AS & T, 12/2015), D. Vuilleumier (ME, 1/2016), D. Yu (ME, 4/2016), H. Wu (ME, 5/16), L. Beker (ME, 5/2016), L. Clemon (ME, 5/2016), Y. Liang (AS & T, 8/16), B. Eovino (ME, 9/16), K. Hansen (ME, 11/16), A. Zeydabadi (ME, 11/16), D. Krumwiede (NE, 12/2016), J. Oreluk (ME, 2/2017), S. Mirramezani (ME, 4/2017), W. Li (ME 5/2017), Y. Huang (ME 5/2017), H. Gramling (ME 5/2017), S. Kidani (ME, TBD),

MASTERS STUDENTS (PLAN I AND PLAN II) SUPERVISED (25 STUDENTS): I. Temizer (ME, 2003), S. Kelley (ME, 2004), W-K. Li (ME, 2004), D. Powell (ME, 2005), J. Wenk (ME., 2005 (co-supervised with P. Papadopoulos)), D. Arbelaez (ME, 2005), J. Cason (ME, 2006), F. Dirksen (ME, 2007), T. Kostka (ME, 5/2008), J. Waterman (12/2008), V. Escobedo (ME, 5/2009), T. Schmid (ME, 6/2009 (co-supervised with D. Steigmann)), L. Boger (ME, 6/2011), J. Stevens (ME, 5/2012), C. Y. Park (ME, 12/2012), D. Driver (ME, 5/2013), R. Ganeriwala (ME, 5/2013), B. Patel (ME, 8/2013), A. Queiruga (ME, 8/2013), M. Lastres (ME 12/2013), M. Kury (ME 12/2014), S. Miret (MSE 5/2015), B. Kelly (ME 5/2015 (co-supervised with H. Taylor)), M. Russell (ME 9/2015), A. Samardi (ME 5/2017)

MASTERS THESES (PLAN I AND PLAN II) COMPLETED AS SECOND OR THIRD READER (41 STUDENTS): K. Kwong (ME, 2002), J. Semtner (ME, 2003), J. Buckley (ME, 2004), C. Wolfe (ME, 2004), R. Sauer (CE, 2004), M. Michlitsch (ME, 2004), C. May (ME, 2004), T. Raybon (ME., 2005), S. Williamson-Stack (ME, 2005), J. Sendagorta (ME, 2005), A. Menjot de Champuer (ME, 2005) E. Cao (ME, 2005), T. Treserras (ME, 2006), K. Donovan (ME, 2006), Y. Z Lu (ME, 2006), C. Bureau (ME 2006), J. Elkin (ME, 2006), A. Faruk (ME, 2008), R. Singla (ME, 2008), Se. Choi (ME, 12/2008), A. Green (ME, 4/2009), S. Choi (ME, 5/2009), P. Minor (ME, 5/2009), T. Schmid (ME, 6/2009), N. Tom (ME, 8/2009), A. Daniel (ME 11/2009), J. Chien (ME, 12/2009), S. Woodin-Schwartz (ME, 12/2010), A. Lee (ME, 1/2011), A. de Closset (ME, 5/2011), M. Sinclair (MENG, 5/2011), P. Cottle (ME, 12/2012), J. Eggleston (ME, 12/2012), A. Immas (ME, 12/2012), A. Sudradjat (ME, 5/2013), L. Clemon (ME, 5/2013), M. Speight (ME 12/2013), S. Frank (ME 4/2014), J. Rey (ME 05/2014), K. Ninomiya (ME 12/2014), M. Micali (ME 5/2016), A.Cen (ME 5/2015)

SERVICE PERFORMED AS AN ORAL EXAMINER FOR MASTERS CANDIDATES (5TH YEAR MASTERS) (8 STUDENTS): J. Jantzen (ME. 3/2009), T. Zhao (ME 3/2011) T. Aung (ME 4/2011), K. Huynh (ME 4/2011), J. Young (ME, 3/2012), K. Moore (ME, 4/2013), R. Le (ME, 4/2013), Y. H. To (ME, 4/2017)

SERVICE PERFORMED AS THESIS CHAIRPERSON FOR THE PROFESSIONAL MASTER'S OF ENGINEERING DEGREE CAPSTONE (42 STUDENTS):S. Hossein Hashemi Ghermezi (ME 5/2013), Y. Sun (ME 5/2013), B. Taylor (ME 5/2013), S. Kondaskumar (ME 5/2013), H. Liu (ME 5/2013), A. Moosazadeh (ME 5/2013), T.-C. Chuang (MSE 5/2014), J. Khan (ME 5/2014), S. Lian (ME 5/2014), Y. Liu (MSE 5/2014), K. Wang (IEOR 5/2014), C. Yang (ME 5/2014), X. Zhang (IEOR 5/2014), C. Paga (ME 5/2015), R. Reghunath (ME 5/2015), Y. Lin (IEOR 5/2015), C. Shen (ME 5/2015), Z. Liu (ME 5/2015), Y. Lai (IEOR 5/2015), A. Kok (MENG 5/2015), H. Hu (BIOENG 5/2015), J. Loh (ME 5/2015), S. Garg (ME 5/2015), M. L. Liou (ME 5/2015), W. H. Lin (MSE 5/2015), M. A. Hakim (IEOR 5/2015) , J. Guo (ME, 5/2017),R. Yu (ME, 5/2017),C. Ding (ME, 5/2017),J. Aase (ME, 5/2017),Y. Su (ME, 5/2017),X. Zhang (ME, 5/2017), Y. Yu (ME, 5/2017),A. Showalter (BIOE, 5/2017),A. Tian (BIOE, 5/2017),V. Kim (MSE, 5/2017),M. Dai (MSE, 5/2017),Q. Hamil (MSE, 5/2017),S. Raghu (MSE, 5/2017),Y. Huang (MSE, 5/2017),J. Zhao (MSE, 5/2017),O. Abdulgader (MSE, 5/2017),

SERVICE PERFORMED AS A SECOND READER FOR THE PROFESSIONAL MASTER'S OF ENGINEERING DEGREE THESIS (19 STUDENTS): D. Taxier (ME 5/2015), J. Steck (ME 5/2015), Y. Tian (ME 5/2015), S. Ai (ME 5/2016), V. Bansal (ME 5/2016), S. Kudroli (ME 5/2016), Y. Li (ME 5/2016), Y. Lo (ME 5/2016), A. Madiyan (ME 5/2016), S. Mahata (ME 5/2016), V. Vohra (ME 5/2016), J. Wu (ME 5/2016), B. Xia (ME 5/2016), X. Zeng (ME 5/2016), Y. Zheng (ME 5/2016), G. Hamel (ME 5/2017), Z. Yu (ME 5/2017), J. Wei (IEOR 5/2017), H. Huang (ME 5/2017)

POST-DOCTORAL SCHOLARS SUPERVISED/HOSTED (10 SCHOLARS): Dr. D. Powell (UC Berkeley, 12/2006- 6/2007), Dr. P. Glosmann (Hamburg, Germany, 8/2007-8/2008), Dr. G. Lubineau (Cachan,France, 5/2007-12/2008), Dr. D. Arbelaez (UC Berkeley, 5/2008-5/2009), Dr. K. Linnemann (Karlsruhe, Germany, 5/2008-5/2009,) Dr. D. Klepach (UC Berkeley/UCSF (jointly with Prof. J. Guccione), 12/2010- 8/2012), Dr. L-C. Lee (UC Berkeley/UCSF (jointly with Prof. J. Guccione), 12/2010-12/2012), Dr. D. Mukherjee (UC

Berkeley, 9/2013-1/2014), Dr. S. Shaul (UC Berkeley, 1/2015-5/2016), Dr. A. Queiruga (UC Berkeley, 5/2015-5/2016)

UNDERGRADUATE SCHOLARSHIP MENTEES FOR THE REGENTS' AND CHANCELLOR'S AND/OR CAL OPPORTUNITY SCHOLARSHIP PROGRAMS (28 STUDENTS): V. Shen (RC, 8/2012-present), W. Lee (Cal Op, 8/2012-present), A. Li (RC, 8/2012-present), M. Cameron (Cal Op, 8/2012-present), A. Faroni (RC, 8/2010-present), T. Wang (RC, 8/2012-present), I. Maric (RC, 8/2012-present), J. Vigneshwaran (RC, 8/2011-present), K. Kung (RC, 8/2012-present), N. Argade (RC, 8/2013-present), M. Campbell (RC, 8/2013-present), D. Fernandez (RC, 8/2013-present), V. Tolani (RC, 8/2013-present), E. Yehl (RC, 8/2013-present), L. Newton (RC, 8/2014-present), N. Subramanian (RC, 8/2014-present), D. Tseng (RC, 8/2014-present), D. Zu (RC, 8/2014-present), A. Carson (RC, 8/2015-present), J. Cortes (RC, 8/2015-present), B. Huang (RC, 8/2015-present), C. Kan (RC, 8/2015-present), A. Ng (RC, 8/2015-present), M. Stump (RC, 8/2015-present), A. Uppaluri (RC, 8/2015-present), S. Wu (RC, 8/2015-present), A. J. Florek (RC, 8/2015-present), C. Y. Wong (Cal Op, 8/2015-present)

PRESENTATIONS/LECTURES (Note: The first author was the presenter.)

1. Zohdi, T. I. (1992) Mathematical modeling of the dynamics of Wankel rotors. AIAA Southwest Student Conference. Dallas, Texas, USA. (Winner of best AIAA student technical lecture).
2. Oden, J. T., Zohdi, T. I. and Rodin, G. J. (1996) Hierarchical modeling of heterogeneous bodies. IUTAM World Congress, Kyoto, Japan (invited keynote lecture).
3. Oden, J. T., Zohdi, T. I. and Cho, J. R. (1996) Hierarchical modeling, a-posteriori error estimation and adaptive methods in computational mechanics. ECCOMAS, Paris, France. (plenary lecture).
4. Oden, J. T. and Zohdi, T. I. (1997) Hierarchical modeling of highly heterogeneous materials. USNCCM, Congress, San Francisco, USA (invited keynote lecture).
5. Oden, J. T. (1997) Vemaganti, K., Moes, N., and Zohdi, T. I. Analysis of composite materials. USNCCM, Congress, San Francisco, USA (invited keynote lecture).
6. Zohdi, T. I. and Oden, J. T. (1997) Analysis and adaptive modeling of highly heterogeneous elastic structures. Workshop on Adaptive Finite Element Methods in Computational Mechanics, Universität Stuttgart, Germany (invited keynote lecture).
7. Zohdi, T. I. (1997) Multiscale modeling of complex solids. Universität Stuttgart, Department of Mechanics, Germany (invited keynote/colloquium lecture)
8. Zohdi, T. I. (1997) Adaptive modeling and simulation of heterogeneous materials. ETH Zurich, Department of Applied Mathematics, Switzerland (invited keynote/colloquium lecture)
9. Zohdi, T. I. (1997) Hierarchical modeling and simulation of complex materials. Universität Kiel, Department of Applied Mathematics, Germany, (invited keynote/colloquium lecture)
10. Zohdi, T. I. and Wriggers, P.(1998) Toward computationally rapid analysis and design of material microstructure and macrostructure GAMM conference, Bremen, Germany (invited lecture).
11. Zohdi, T. I. (1998) A method of model reduction for heterogeneous materials. Workshop: Mathematical approaches to the continuum mechanics of fluids and solids. Wahlen, Germany. (invited lecture)
12. Zohdi, T. I. (1998) Universität Braunschweig, Department of Scientific Computation, Germany (invited keynote/colloquium lecture)
13. Zohdi, T. I. (1999) Max Planck Institute, Leipzig, Department of Applied Mathematics, Germany (invited keynote/colloquium lecture)
14. Zohdi, T. I. (1999) Ecole Polytechnique Federale, Lausanne, Department of Materials Science, Switzerland (invited keynote/colloquium lecture)
15. Zohdi, T. I. and Wriggers, P.(1999) Thermo-chemo-mechanische Simulation der Degradation von Ingenieurwerkstoffen. Kolloquium: Gekoppelte Probleme der Fluid- und Festkörpermechanik. Hannover, Germany (invited keynote/colloquium lecture).
16. Zohdi, T. I. and Wriggers, P.(1999) Some aspects of computational testing and design of composite materials. European Conference on Computational Mechanics. Munich, Germany (invited lecture).

17. Oden, J. T., Vemaganti, K. and Zohdi, T. I. (1999) Local estimates and upper and lower bounds of modeling error and adaptive modeling of heterogeneous media. European Conference on Computational Mechanics. Munich, Germany. (invited keynote/colloquium lecture)
18. Zohdi, T. I. (1999) A model for simulating the deterioration of structural-scale material responses of microheterogeneous solids. Euromech Colloquium 402: Micromechanics of Fracture Processes. Seeheim, Germany. (invited keynote/colloquium lecture)
19. Zohdi, T. I. (2000) Computational testing of microheterogeneous solids. Northwest German Colloquium for Mechanics. Hannover, Germany. (invited keynote/colloquium lecture)
20. Wriggers, P. and Zohdi, T. I. (2000) On the reliability of computational material tests at infinitesimal and finite strains. IUTAM World Congress, Chicago, USA (invited lecture).
21. Zohdi, T. I. (2000) Some approaches for modeling and simulation of thermo-chemo-mechano processes in microheterogeneous solids. 239. WE-Heraeus-Seminar: Modeling and algorithms for problems in solid mechanics. Bad Honnef, Germany. (invited lecture)
22. Zohdi, T. I. and Wriggers, P. (2000) A model for simulating the deterioration of structural-scale material responses of microheterogeneous solids. ECCOMAS/COMPLAS. September 11-14., Barcelona, Spain. (invited keynote/colloquium lecture)
23. Zohdi, T. I. (2000) Universität Stuttgart, Stuttgart, Department of Mechanics, Germany (invited keynote/colloquium lecture)
24. Zohdi, T. I. (2000) Chalmers University, Departments of Applied Mathematics and Mechanics, Goteburg, Sweden (invited keynote/colloquium lecture)
25. Zohdi, T. I. (2001) Universität Stuttgart, Department of Structural Mechanics, Stuttgart, Germany (invited keynote/colloquium lecture)
26. Zohdi, T. I. (2001) University of California, Department of Mechanical Engineering, Berkeley, USA (invited keynote/colloquium lecture)
27. Zohdi, T. I. (2001) University of New Mexico, Department of Mechanical Engineering, Albuquerque, USA (invited keynote/colloquium lecture)
28. Zohdi, T. I. (2001) Johns Hopkins University, Department of Civil Engineering, Baltimore, USA (invited keynote/colloquium lecture)
29. Zohdi, T. I. (2001) Yale University, Department of Mechanical Engineering, New Haven, USA (invited keynote/colloquium lecture)
30. Zohdi, T. I. (2001) University of California, Department of Materials Science, Berkeley, USA (invited keynote/colloquium lecture)
31. Wriggers, P. and Zohdi, T. I. (2001) Computational testing of new materials. ECCM Conference. Cracow, Poland. (plenary lecture)
32. Zohdi, T. I. and Wriggers, P. (2001) Aspects of the computational testing of the mechanical properties of microheterogeneous material samples. USNCCM Conference, Dearborn, USA (invited lecture).
33. Zohdi, T. I. (2002) Genetic strings for nonconvex micro-macro material design. IUTAM Symposium on Micromechanics of Suspensions and Composites. Austin, Texas. (invited keynote/colloquium lecture)
34. Zohdi, T. I. (2002) Micro-macro genetic design of multiscale solids. 12th International Workshop on Computational Mechanics of Materials. Darmstadt, Germany. (invited keynote/colloquium lecture)
35. Zohdi, T. I. (2002) Modeling and simulation of variably coupled time-transient thermo-chemomechanical processes in multiphase solids. Multiscale Computational Mechanics for Material and Structures, Cachan, France. (invited keynote/colloquium lecture)
36. Zohdi, T. I. (2002) Stanford University, Department of Mechanical Engineering, Palo Alto, USA (invited keynote/colloquium lecture)
37. Zohdi, T. I. (2002) CISM (the International Centre For Mechanical Sciences) Lecture Series. Six lectures on Computational Micromechanics. Udine, Italy (invited keynote/colloquium lecturer).
38. Zohdi, T. I. (2003) University of California, Department of Mechanical Engineering, San Diego, USA (invited keynote/colloquium lecture)
39. Zohdi, T. I. (2003) Materials Research Institute, Chemistry and Materials Science Directorate, Lawrence Livermore National Lab, Livermore, USA (invited keynote/colloquium lecture).

40. Zohdi, T. I. (2003) Nonstandard inverse problems in micro-macro mechanics USNCCM Conference, Albuquerque, USA (invited lecture).
41. Zohdi, T. I. (2003) New particle-based models for granular flows. Second International Workshop on Geophysical Mass Flow Modeling and Simulations. Buffalo, New York. (invited keynote/colloquium lecture).
42. Zohdi, T. I. (2003) Nano-scale heterogeneous and multifunctional materials. ARO Workshop on Future Directions in Solid Mechanics. Arlington, Virginia. (invited keynote/colloquium lecture).
43. Zohdi, T. I. (2004) University of California, Department of Civil Engineering, Berkeley, USA (invited keynote/colloquium lecture)
44. Zohdi, T. I. (2004) Lawrence Berkeley Labs, Berkeley, USA (invited keynote/colloquium lecture)
45. Zohdi, T. I. (2004) Nonstandard inverse problems in micro-macro mechanics. Workshop on inverse problems in solid mechanics. The Center for Inverse Problems at Rensselaer Polytechnic Institute, Troy, New York. (invited keynote/colloquium lecture).
46. Szeri, A. J. and Zohdi, T. I. (2004) Lithotripter shock wave simulations and cavitation damage of kidney stones, Annual Program Project Meeting, sponsored by N.I.H., Indiana University School of Medicine, September 2, 2004 (invited lecture).
47. Szeri, A. J. and Zohdi, T. I. (2005) A model for damage of microheterogeneous kidney stones. Meeting of the Acoustical Society of America, Vancouver, May 16, 2005 (invited lecture).
48. Zohdi, T. I. (2005) Modeling and simulation of nonstandard multi-eld granular flows. Berkeley-Stanford Computational Fest (invited keynote/colloquium lecture).
49. Zohdi, T. I. (2005) Light scattering properties of random particulate systems. USNCCM Conference, Austin, Texas, USA. (invited lecture).
50. Zohdi, T. I. (2005) Light scattering and coupled thermal processes in particulate clouds. Clouds, Aerosols, and Radiative Transfer Workshop. Space Sciences Laboratory, Berkeley, California, USA (invited keynote/colloquium lecture).
51. Zohdi, T. I. (2005) University of California, Los Angeles, Department of Mechanical Engineering, Los Angeles, USA (invited keynote/colloquium lecture)
52. Zohdi, T. I. (2005) The Ohio State University, Department of Mechanical Engineering, Columbus, USA (invited keynote/colloquium lecture)
53. Zohdi, T. I., (2005) CISM (the International Centre For Mechanical Sciences) Lecture Series. Six lectures on multiscale modeling and design of new materials. Udine, Italy (invited keynote/colloquium lecture).
54. Arbelaez, D. & Zohdi, T. (2006) Granular Flow Simulation of CMP. Eleventh International CMP Planarization for ULSI Multilevel Interconnection Conference. February 21 - 23, 2006 Fremont, Ca (contributed lecture).
55. Arbelaez, D. & Zohdi, T. I. (2006) Modeling and simulation of CMP. Berkeley-Stanford Computational Fest (invited lecture).
56. Powell, D. & Zohdi, T. I. (2006) Modeling and simulation of Ballistic Fabric. Berkeley-Stanford Computational Fest (invited lecture).
57. Powell, D and Zohdi, T. I. (2007) Multiscale construction and large-scale simulation of dynamically loaded structural fabric, 9th US National Congress on Computational Mechanics, San Francisco, California, USA (contributed lecture).
58. Arbelaez, D. and Zohdi, T. (2007) Simulation of charged particulate sprays striking a surface. 9th US National Congress on Computational Mechanics, San Francisco, California, USA (contributed lecture).
59. Wenk, J., Papadopoulos, P. and Zohdi, T. (2007) On the sensitivity of critical plaque-cap stress in stenosed arteries. 9th US National Congress on Computational Mechanics, San Francisco, California, USA (contributed lecture).
60. Zohdi, T. (2007) Modeling and simulation of multiphysical processes in particulate media. MSC Software Corporation, Mountain View, California (invited keynote/colloquium lecture)
61. Zohdi, T. (2007) Modeling and simulation of multiphysical processes in particulate media. UC Berkeley Applied Math Series, Berkeley, California (invited keynote/colloquium lecture)
62. Lee, L. C., Jackson, I., Morris, S. and Zohdi, T. I. (2007) A finite element study of elastically

accommodated grain boundary sliding. *Eos Trans., AGU*, 88 (52), Fall Meeting, 10-14 December, San Francisco, California, USA. (contributed lecture).

63. Zohdi, T. (01/2008) Multiphysical granular flows: from particles to swarms. Midwest Mechanics Lecture Series. Northwestern University, Evanston, Illinois (invited keynote/colloquium lecture)

64. Zohdi, T. (03/2008) Modeling and simulation of multiphysical processes in particulate media. University of Southern California (invited keynote/colloquium lecture)

65. Zohdi, T. (04/2008) An Overview of Contemporary Topics in Multiscale Modeling. Department of Civil Engineering, UC Berkeley (invited keynote/colloquium lecture)

66. Zohdi, T. (05/2008) Multiphysical particulate systems. Department of Mechanical Engineering, Stanford University (invited keynote/colloquium lecture)

67. Wenk, J., Papadopoulos, P., Zohdi, T. (06/2008) Numerical Modeling of Stress Concentrations in Micro-Heterogeneous Bio-Tissue. 8th World Congress for Computational Mechanics, Venice, Italy (contributed lecture)

68. Powell, D., Zohdi, T., Farhat, C. (06/2008) Multi-Scale Construction and Large-Scale Simulation of Dynamically Loaded Structural Fabric. 8th World Congress for Computational Mechanics, Venice, Italy (invited lecture)

69. Powell, D., Zohdi, T., Farhat, C. (12/2008) Multi-Scale Modeling and Large-Scale Transient Simulation of Ballistic Fabric. 26th Army Science Conference, Orlando, FL (contributed lecture).

70. Farhat, C., Powell, D. and Zohdi, T. (04/2009) Multi-Scale Modeling and Large-Scale Transient Simulation of Ballistic Fabric. Aberdeen Proving Grounds (invited lecture).

71. Arbelaez, D. and Zohdi, T. (04/2009) Modeling of Composite Materials at Multiple Scales. Aberdeen Proving Grounds (invited lecture).

72. Arbelaez, D., Mseis, G. and Zohdi, T. (06/2009) Modeling of Composite Materials at Multiple Scales. Army High Performance Computing Center Review, Stanford University (invited lecture).

73. Powell, D., Zohdi, T., and Farhat, C. (07/2009) Multi-Scale Modeling and Large-Scale Transient Simulation of Ballistic Fabric. 10th US National Congress on Computational Mechanics, Columbus, Ohio, USA (invited lecture).

74. Zohdi, T. (10/2009) Modeling and simulation of multiphysical processes in particulate media. University of Southern California, Department of Civil Engineering (invited keynote/colloquium lecture)

75. Zohdi, T. (11/2009) Modeling and simulation of multiphysical processes in particulate media: electromagnetic sprays and solids. Workshop on Mesoscale Mechanics of Complex Materials. Vancouver, Canada (invited keynote lecture)

76. Zohdi, T. (12/2009) Modeling and simulation of multiphysical processes in particulate media. Lawrence Berkeley National Labs (invited keynote/colloquium lecture)

77. Choi, S., Pisano, A. P. and Zohdi, T. I. (12/2009) Ultrafast self-assembly of microscale particles by open-channel Flow. Materials Research Society (MRS) Fall 2009 Meeting, Dec 2009, Boston, Mass., USA (contributed lecture).

78. Lee, L. C., Morris, S. and Zohdi, T. I. (12/2009) Effects of stress concentrations on the attenuation by diffusionally-assisted grain boundary sliding. *Eos Trans., AGU* 90 (52), Fall Meeting, 14-18 December, San Francisco, California, USA (contributed lecture).

79. Zohdi, T. (02/2010) Computational analysis of microheterogeneous media. Lawrence Berkeley National Labs (invited keynote/colloquium lecture)

80. Zohdi, T. (04/2010) Modeling and simulation of multiphysical processes in particulate media. Duracell/Proctor and Gamble ("Webinar" invited keynote/colloquium lecture)

81. Choi, S., Pisano, A. P. and Zohdi, T. I. (04/2010) Three-dimensional Patterning of Micro, Nano-Particle Assembly With Single Droplet. Materials Science Research Society, Spring Meeting Conference, San Francisco (contributed lecture).

82. Zohdi, T. (05/2010) Modeling and simulation of multiphysical processes in particulate media. University of Colorado, Boulder, Department of Mechanical Engineering (invited keynote/colloquium lecture)

83. Lee, L. C., Morris, S. J. S., Wilkening, J. and Zohdi, T. (06/2010) Effects of stress concentrations on the attenuation by diffusionally-assisted grain boundary sliding. 16th US National Congress of Theoretical and

- Applied Mechanics, State College, Pennsylvania, USA (contributed lecture).
84. Zohdi, T. I., (06/2010) CISM (the International Centre For Mechanical Sciences) Lecture Series. Six lectures on modeling and simulation of multiphysical processes in multiscale systems. Udine, Italy (invited keynote/colloquium lecture).
 85. Collins, B., Krishnan, J., Arbelaez, D., Ferracin, P., Prestemon, S. O., Godeke, A., Dietderich, D. R., Sabbi, G. and Zohdi, T. I. (08/2010). Introduction of nonlinear properties into hierarchical models of Nb₃Sn strands. IEEE 2010 Applied Superconductivity Conference, Washington, DC, USA (contributed lecture).
 86. Zohdi, T. I. (01/2011). Computational needs for artificial photosynthesis. DOE Advanced Mod/Sim Workshop, Lawrence Livermore National Labs (invited lecture).
 87. Zohdi, T. I. (01/2011). Modeling and simulation tools for multiphysical ballistic shielding applications. DOD workshop, UC Berkeley (invited lecture).
 88. Dibble, R., Chen, J. Y., and Zohdi, T. I. (01/2011). Ion Chemistry in Combustion with Applications to a Microwave-Assisted Spark Plug. Inaugural Meeting of the Saudi Arabian Section of the Combustion Institute, KAUST (invited keynote/colloquium lecture).
 89. Zohdi, T. I. (03/2011). LSU Mechanical Engineering Alumni Achievement Lecture for 2011. A special honor reserved for one Louisiana State University (LSU) ME alumnus per year for an exceptional level of achievement: Modern computational Design". Baton Rouge, La. (invited keynote/colloquium lecture).
 90. Choi, S., Pisano, A. P. and Zohdi, T. I. (04/2011) Fast, High-Throughput Micro, Nanoparticle Printing with Tunable Size and Resolution via Porous Membrane. Materials Research Society (MRS) Spring 2010 Meeting, April 2011, San Francisco, CA, USA (contributed lecture).
 91. Zohdi, T. I. (07/2011) Modeling and simulation electromagnetically-controlled structural fabric. 11th US National Congress on Computational Mechanics, Minneapolis, Minnesota, USA July 25-29 (contributed lecture).
 92. Zohdi, T. I. and Farhat, C. (08/2011) Multiscale ballistic fabric nets. Army High Performance Computing Center Review. August 17-18 (invited lecture).
 93. Klepach, D., Lee, L-C., Wenk, J., Ratcliffe, M. B., Zohdi, T. I., Kuhl, E. and Guccione, J. M. (09/2011) Finite Element Stress Analysis of Left Ventricular Remodeling in Response to a Myocardial Infarction ASME Emerging Technologies' 6th Frontiers in Biomedical Devices Conference and Exhibition, September 26-27, Irvine, California (invited lecture).
 94. Collins, B., Krishnan, J., Arbelaez, D., Ferracin, P., Dietderich, D. R. and Zohdi, T. I. (09/2011) Computation of Strain State in a Nb₃Sn Strand Using Nonlinear Hierarchical Models. IEEE 22 Magnet Technology Conference, Marseille, France (contributed lecture)
 95. Zohdi, T. I. (10/2011) Impact dynamics of charged electromagnetic particulate jets and droplets. Session: Multiscale Modeling in Mechanics and Materials at the 48th Annual Technical Meeting of the Society of Engineering Science (SES). Northwestern University on October 12 - 14, 2011 (invited lecture).
 96. Zohdi, T. I., Kuypers, F. A. and Lee, W. C. (10/2011) Estimation of red blood cell volume fraction from overall permittivity measurements. Session: Mechanics of Soft Tissues at the 48th Annual Technical Meeting of the Society of Engineering Science (SES). Northwestern University on October 12 - 14, 2011 (invited lecture).
 97. Zohdi, T. I. (11/2011) Survivability of lightweight structures. Army high performance computing research center research management board review. Stanford University, November 30, 2011 (invited lecture).
 98. Zohdi, T. I. (12/2011) Computational design of new materials. Advanced Manufacturing Project Workshop. U. C. Berkeley, December 5, 2011 (invited lecture).
 99. Zohdi, T. I. (01/2012) Modeling and simulation of ballistic electromagnetic fabric shields. Symposium on Advances in Computational Science, Engineering and Mathematics. January 19-20, Austin, Texas (invited lecture).
 100. Zohdi, T. I., Kuypers, F. A. and Lee, W. C. (02/2012) Computational estimation of red blood cell volume fraction from overall permittivity measurements. First USACM Thematic Conference on Multiscale Methods and Validation in Medicine and Biology. February 13-14, San Francisco (contributed lecture).
 101. Zohdi, T. I. (03/2012) Electromagnetic contact in particulate media and fabric materials. March 26-30,

- EUROMECH 514 : New trends in Contact Mechanics, Cargese, Corsica, France (invited lecture).
102. Zohdi, T. I. (05/2012) An Overview of Modeling and Simulation of Multiphysical Processes in New Materials. The Siemens Corporation. Orlando, Florida (invited lecture).
103. Zohdi, T. I. (07/2012) Modeling and Simulation of Multiphysical Processes in New Materials: Electro-Magneto-Thermo-Elasto Coupled Systems. World Congress for Computational Mechanics, Sao Paulo, Brazil July 8-13, 2012 (invited congress plenary lecture).
104. Dirksen, F., Lammering, R. and Zohdi, T. I. (07/2012) Structural optimization of large-displacement, path-following compliant mechanisms with optimally designed flexure hinges. European Solid Mechanics Conference, Graz, Austria. July 9-13, 2012 (contributed lecture).
105. Zohdi, T. I. (09/2012) Modeling and Simulation of Multiphysical Processes in New Materials for Energy-Related Applications. 22nd International Workshop on Computational Mechanics of Materials (IWCMM XXII). September 24-26, 2012 in Baltimore, Maryland (invited workshop semi-plenary lecture).
106. Zohdi, T. I. (10/2012) Modeling and Simulation of New Materials for Energy-Related Applications. Notre Dame University, South Bend, Indiana (colloquium/invited lecture).
107. Zohdi, T. I. (11/2012) Modeling and Simulation of New Materials. UC San Diego (colloquium/invited lecture).
108. Mosalam, K. and Zohdi, T. I. (12/2012) Developing Surface Features on Building Envelopes for Sunlight Capture Association of Egyptian American Scholars 39th Annual conference, December 25-27th, Cairo, Egypt (invited lecture).
109. Dirksen, F., Berg, T., Lammering, R. and Zohdi, T. I. (12/2012) Topology synthesis of large displacement compliant mechanisms with specific output motion paths. 83rd Annual Meeting of the International Association of Applied Mathematics and Mechanics (GAMM), Darmstadt, Germany (contributed lecture).
110. Zohdi, T. I. (02/2013) Deposition of complex particulate sprays and droplets in electromagnetic fields. Advances in Computational Mechanics. February 24-27, San Diego, California (invited lecture).
111. Mosalam, K. M., Casquero-Modrego, N., Armengou, J., Ahuja, A., Zohdi, T. I. and Huang, B. (03/2013). Anidolic Day-Light Concentrator in Structural Building Envelopes. 1st Annual International Conference on Architecture and Civil Engineering (ACE 2013). Singapore, March 18-19, 2013 (contributed lecture).
112. Zohdi, T. I. (06/2013) Harnessing Electromagnetism for the Manufacturing of New Multifunctional Particulate Materials: Modeling and Simulation. Common Challenges in Computationally-Based Engineering Research. ETH Zurich, June 5 (invited keynote lecture).
113. Zohdi, T. I. (06/2013) Harnessing Electromagnetism for the Manufacturing of New Multifunctional Particulate Materials. Computational Methods for Coupled Problems in Science and Engineering. June 17-19, Ibiza, Spain (invited keynote lecture).
114. Zohdi, T. I. (06/2013) Manufacturing of Processes for New Materials. Colloquium Materials Modelling, Institute for Materials Testing, Materials Science and Strength of Materials (IMWF), University of Stuttgart, Germany (invited colloquium lecture).
115. Zohdi, T. I. (07/2013) Electrically-aided compaction of powdered materials and laser-based post processing. The International Conference on Computational Contact Mechanics - ICCCM13, July 10-12, Lecce, Italy (invited keynote lecture).
116. Zohdi, T. I. (07/2013) Modeling and Simulation of Electromagnetic Fabric Shielding United States National Congress for Computational Mechanics. Raleigh July 22-26, (invited keynote lecture).
117. Campello, E. and Zohdi, T. I. (07/2013) Computational Analysis of Drug Jets for Transdermal Drug Delivery. United States National Congress for Computational Mechanics. Raleigh July 22-26, (contributed lecture).
118. Mukherjee, D. and Zohdi, T. I. (07/2013) Development of a Computer Simulation Tool for Discrete Element Method and Collision Driven Particle Dynamics Simulations. United States National Congress for Computational Mechanics. Raleigh July 22-26, (contributed lecture).
119. Zohdi, T. I. (09/2013). Harnessing Electromagnetism for the Manufacturing of New Multifunctional Particulate Materials. The 3rd ECCOMAS Thematic Conference on Particle-Based Methods. Fundamentals

and Applications (Particles 2013), Stuttgart, Germany, September 18-20, 2013 (invited conference plenary lecture).

120. Mukherjee, D. and Zohdi, T.I. (11/2013) Electromagnetic control of charged particulate spray systems - models for planning the spray gun operations, SIAM Conference on Geometrical and Physical Modeling, Denver, November 11-14 (contributed lecture).

121. Mukherjee, D. and Zohdi, T.I. (11/2013) Computer Modeling and Simulation Framework for Particulate Spray Based Manufacturing Processes, Proceedings of The ASME 2013 International Mechanical Engineering Congress & Exposition (IMECE2013), San Diego, November 15-21 (contributed lecture).

122. Mukherjee, D. and Zohdi, T.I. (11/2013) Collision Driven Particle Dynamics Simulations for Analyzing Flows of Particulate Sprays and Jets, The 66th Annual Meeting of the American Physical Society's Division of Fluid Dynamics, Pittsburgh, November 24-26 (contributed lecture).

123. Zohdi, T. I. (11/2013). Computational approaches for next generation additive manufacturing simulation. MIT (invited colloquium lecture).

124. Zohdi, T. I. (12/2013). Modeling and Simulation of Electromagnetic Fabric Shielding. Workshop on Computational Methods for Problems With Evolving Domains and Discontinuities, Palo Alto, CA. (contributed lecture).

125. Zohdi, T. I. (2/2014). Electromagnetics and biotissue across multiple frequency and intensity regimes. Multiscale Methods and Validation in Medicine and Biology II: Biomechanics and Mechanobiology. Feb. 13-14, Berkeley, California. (contributed lecture).

126. Ganeriwala, R. and Zohdi, T. I. (6/2014). Multiphysics modeling and simulation of selective laser sintering manufacturing processes. 6th CIRP Conference on High Performance Cutting (HPC2014). June 23-24, Berkeley, California (contributed lecture).

127. Zohdi, T. I. (5/2014). Modeling and Simulation of Multiphysical Processes for the Manufacturing of New Multifunctional Particulate Materials. IUTAM Conference on Connecting Multiscale Mechanics to Complex Material Design. May 14-16, Evanston, Illinois. (invited lecture).

128. Mukherjee, D., Zaky, Z., Zohdi, T. I., Salama, A. and Sun, S. (5/2014). Investigation of noninvasive healing of damaged piping system using electro-magneto-mechanical methods. (Won Best Poster) Conference: SPE International Oil Field Corrosion Conference and Exhibition, May 12-13, 2014, United Kingdom. (contributed lecture).

129. Zohdi, T. I. (7/2014). New materials: a research overview. Siemens University Liason Management Workshop. Charlotte, North Carolina, July 24-26. (invited lecture).

130. Zohdi, T. I. (9/2014). Modeling and simulation of multiphysical processes for advanced manufacturing of new multifunctional materials. Invited Departmental Seminar, USC, Department of Mechanical Engineering. Sept. 6, 2014. (invited lecture).

131. Zohdi, T. I. (9/2014). Computational methods for the propagation of light and heat transfer for next generation buildings. The UC Berkeley-Norway Workshop on Next-Generation Building Efficiency, Sept. 15, 2014, UC Berkeley (invited lecture).

132. Zohdi, T. I. (9/2014). Modeling and simulation of additive manufacturing processes. Applied Mathematics Seminar. Sept. 24, 2014, UC Berkeley (invited lecture).

133. Zohdi, T. I. (3/2015). Modeling and Simulation of Multiphysical Processes for Advanced Manufacturing of New Multifunctional Materials. March 23-24, 2015, University of Southern California. (invited lecture).

134. Zohdi, T. I. (4/2015). Modeling and simulation of advanced manufacturing processes. Keynote speaker at the 2015 Annual Computational Science and Engineering Symposium. April 16, 2015, University of Illinois Urbana Champaign (invited lecture).

135. Johnson, J., Edmiston, J., Zohdi, T. I. and Steigmann, D. J. (6/2015). Development of a geoperidynamics simulation for hydraulic fracture. Engineering Mechanics Institute Conference. June 16-19, 2015 Palo Alto (contributed lecture).

136. Zohdi, T. I. (7/2015). Application of computational methods for advanced manufacturing. Machine Tool Technologies Research Foundation. July 2, 2015, San Francisco (invited lecture).

137. Zohdi, T. I. (7/2015). Disruptive technologies for advanced manufacturing. Second Workshop- Synergy in Computational Mechanics and Manufacturing. Hannover, Germany. July 13, 2015, (invited lecture).

138. Zohdi, T. I. (8/2015). Computational methods for advanced manufacturing. American Bureau of Shipping. August 4, 2015, Houston, USA (invited lecture).
139. Zohdi, T. I. (8/2015). An Introduction to the Designated Emphasis at UC Berkeley. Lawrence Berkeley National Labs. August 21, 2015, Berkeley, USA (invited lecture).
140. Zohdi, T. I. (9/2015). A Consortium for Computational Manufacturing for Medical Industry. Center for Disruptive Musculoskeletal Innovations-Fall Symposium. September 10, 2015, San Francisco, USA (invited lecture).
141. Zohdi, T. I. (9/2015). Modeling and Simulation of Multiphysical Processes for Advanced Manufacturing of New Multifunctional Materials. Lawrence Berkeley National Labs. September 14, 2015, Berkeley, USA (invited lecture).
142. Casas, G., Mukherjee, D., Celigueta, M. A., Zohdi, T. I. and Onate, E. (9/2015). Large-Scale Grain Distribution Simulations With Rotating Machinery Using Efficient Discrete Element Models. IV International Conference On Particle-Based Methods: Fundamentals and Applications, Barcelona, September 30, 2015 (contributed lecture).
143. Ahuja, A., Mosalam, K. and Zohdi, T. I. (12/2015). An illumination Model For Translucent Concrete Using Radiance. Building Simulation 2015, Hyderabad, India, December 7-9 (contributed lecture).
144. Zohdi, T. I. (12/2015). Industrial applications of additive manufacturing for use in military applications. Army High Performance Computing Research Center Conference on Additive Manufacturing. Adelphi, Maryland, December 15-16, 2015 (invited lecture).
145. Zohdi, T. I. (1/2016). Discrete Element Methods for use in military applications. Stanford University, Palo Alto, USA January 19, 2016(invited lecture).
146. Zohdi, T. I. (3/2016). Next generation advanced manufacturing. Army High Performance Computing Research Center Workshop. Santa Cruz. March 28-29, 2016 (invited lecture).
147. Zohdi, T. I. (5/2016). An Overview of the Advanced Robotics Manufacturing Network. UC Berkeley, May 25, 2016 (invited lecture).
148. Zohdi, T. I. (6/2016). Ballistic modeling of electrified fabric shields. IUTAM Symposium on Integrated Computational Structure-Material Modeling of Deformation and Failure under Extreme Conditions, Johns Hopkins University June 20, 2016 (invited lecture-declined for health reasons).
149. Zohdi, T. I. (6/2016). Multiphysical Simulation for Advanced Additive Manufacturing Processes. Inaugural Scientific Computing and Algorithm Development SIG Lecture. Schlumberger Corporation. Houston (invited lecture).
150. Zohdi, T. I. (8/2016). Modeling and Simulation of Multiphysical Processes for Advanced Manufacturing of New Multifunctional Materials. Karles Invitation Conference, ONR, Washington DC. August 11, 2016 (invited lecture-declined for health reasons).
151. Zohdi, T. I. (9/2016). Swarm-Enabled Infrastructure-Mapping for Rapid Damage Assessment Following Earthquakes. Faculty Forum on Resilience in the Face of Global Change, UC Berkeley, September 16 (invited lecture).
152. Zohdi, T. I. (9/2016). Due Diligence When Considering New Water Technologies-An Engineers Point of View. The Townes and Tagore Annual Seminar For Science and Technology-World Water Symposium, UC Berkeley, September 17 (invited lecture).
153. Zohdi, T. I. (9/2016). An Introduction to the UC Berkeley Computational and Data Science and Engineering Program. Berkeley Institute for Data Science, UC Berkeley, September 22 (invited lecture).
154. Zohdi, T. I. (9/2016). Multiphysical Simulation of Additive Manufacturing Processes. Conference on Additive Manufacturing and Innovative Technologies. Linz, Austria, September 28-29 (invited plenary lecture-declined for health reasons).
155. Zohdi, T. I. (10/2016). Computational Contact and Interface Mechanics: Modeling Industrial Powder-Processing. CISM, Palazzo del Torso, Udine, Italy. 6 lectures. October 3-7 (invited lecture-declined for health reasons).
156. Zohdi, T. I. (11/2016-tentative). Modeling and Simulation of Multiphysical Particulate Flows for Advanced Additive Manufacturing Processes. Stanford University Fluid Mechanics Colloquium. Palo Alto (invited lecture).
157. Zohdi, T. I. (11/2016). Modeling and Simulation of Discontinuous Systems: from Materials

to Synthetic Swarms, Geospatial Innovation Facility Lecture series, UC Berkeley, November 17 (invited lecture).

158. Zohdi, T. I. (3/2017). Simulation of Advanced Manufacturing Processes. Advances in Computational Science and Engineering, Austin, Texas (invited lecture).

160. Zohdi, T. I. (5/2017) A Virtual Tour of the Berkeley Industrial Research Center. May 12, 2017. Regional Meeting of the Clean Energy Smart Manufacturing Innovation Institute. Phoenix, Arizona (invited lecture)

161. Zohdi, T. I. (5/2017) Next Generation Electromagnetic 3D Printing. May 22, 2017. IUTAM Workshop on Advanced Manufacturing, UC Berkeley (invited lecture)

162. Russell, M. and Zohdi, T. I. (6/2017). Numerical simulation of advanced additive manufacturing processes using meshless particle methods. Conference on Hierarchical and Multiscale Methods for Material Modeling. San Diego, California June 4-7, 2017. (invited lecture).

163. Russell, M., Souto-Iglesias, A. and Zohdi, T. I. (6/2017). Numerical Simulation of Advanced Additive Manufacturing Processes using SPH. 12th International Smoothed Particle Hydrodynamics European Res. Interest Community (SPHERIC) Workshop Spain June 13-17, 2017. (contributed lecture).

164. Fernandez-Gutierrez, D. ., Souto-Iglesias, A. and Zohdi, T. I. (6/2017). A hybrid Lagrangian Voronoi-SPH scheme. 12th International Smoothed Particle Hydrodynamics European Res. Interest Community (SPHERIC) Workshop Spain June 13-17, 2017. (contributed lecture).

165. Zohdi, T. I. (7/2017-tentative). Modeling and Simulation of Multiphysical Particulate Flows for Advanced Additive Manufacturing Processes. United States National Congress for Computational Mechanics. Montreal, Canada (invited plenary lecture).

166. Zohdi, T. I. (9/2017-tentative). Modeling and simulation of functionalized materials for additive manufacturing and 3-D printing V International Conference on Particle-based Methods. Hannover, Germany, September 26-28 (invited plenary lecture).

167. Zohdi, T. I. (9/2017-tentative). Electromagnetic control in advanced manufacturing. V International Conference on Particle-based Methods. Hannover, Germany, September 26-28 (invited lecture).

168. Bandiera, A., A. and Zohdi . T. I (9/2017-tentative), Numerical simulations of granular material. V International Conference on Particle-based Methods. Hannover, Germany, September 26-28 (contributed lecture).

169. Zohdi, T. I. (9/2017-tentative) Industrial Simulation of Next Generation 3D printing and Advanced Manufacturing. UC Berkeley Homecoming Commencement Lecture. Berkeley, California (invited lecture)

170. Zohdi, T. I. (11/2017-tentative). Modeling and simulation of advanced manufacturing and 3-D printing. CILAMCE 2017 (XXXVIII Iberian Latin American Congress on Computational Methods in Engineering). Florianópolis, Santa Catarina, Brazil, November 5-8, 2017.(Plenary lecture)

171. Zohdi, T. I. (12/2017-tentative). Computational Methods for Advanced Additive Manufacturing Processes. University of Michigan, Ann Arbor (invited lecture).

UNIVERSITY COMMITTEE SERVICE:

(1) SERVICE TO DEPARTMENT:

(ACTIVE COMMITTEE SERVICE)

1. (ME Committee) ME Industrial Advisory Board, 8/2015-present,
2. (ME Committee) Seminars (8/2001-present), chair 8/2005-8/2014,
3. (ME Committee) Equity, Diversity and Inclusion (8/2012-present),
4. (ME Committee) Preliminary exam committee (1/2012-present),
5. (ME Committee) Departmental Standing Search Committee (1/2013-present),
6. (ME Committee) Departmental Committee on Master of Engineering (1/2013-present),
7. (ME Committee) Departmental Committee on Graduate Study (8/2013-present),

8. (ME Committee) Major Field Advisor MENG: Mod. and Sim. of Phys. Proc. (1/2013-present),
9. (ME Committee) Major Field Advisor for Manufacturing (1/2013-present),
10. (ME Committee) Chair's Advisory Committee (8/2008-8/2012, 8/2014-present)
11. (ME Committee) Social Committee (8/2015-present)
12. (ME Committee) Development Committee (8/2015-present)

(PAST COMMITTEE SERVICE)

1. (ME Committee) Awards committee (8/2005-8/2006),
2. (ME Committee) Undergraduate Study (8/2005-8/2006),
3. (ME Committee) Computing software (8/2001-8/2011), chair 8/2005-8/2011),
4. (ME Committee) NRC Review (8/2005-8/2010, chair),
5. (ME Committee) Graduate Study (8/2005-8/2012),
6. (ME Committee) Faculty and Student Affirmative Action (8/2005-8/2010),
7. ME Solid and Continuum Mechanics graduate group advisor (8/2005-8/2009),
8. (ME Committee) Academic Planning (8/2009-8/2012)
9. (ME Committee) ABET and undergraduate study (8/2009-8/2012, chair 8/2009-8/2012)
10. (ME Committee) Comm. for on-line (Master of Adv. Studies (MAS) degree (1/2012-1/2013)
11. (ME Committee) Faculty search committee for Advanced Manufacturing (9/2012-5/2013)
12. (ME Committee) Faculty search committee for Ocean Engineering (9/2014-5/2015),
13. (ME Committee) Faculty search, Design, Control and Rob., Applied Energy (9/2015-6/2016)

(2) SERVICE TO COLLEGE:

(ACTIVE COMMITTEE SERVICE)

1. (College Committee) ABET Committee (8/2009-present),
2. (College Committee) Com. for Summer Und. Prog. in Eng. Res (SUPERB) (8/2006-present),
3. (College Committee) Engineering Science Committee (8/2002-present),
4. (College Committee) Member, Program in Engineering Science (8/2002-present),
5. (College Committee) Committee of Ocean Engineering (8/2007-present),
6. (College Committee) CES undergraduate advisor (8/2005-present),
7. (College Committee) College of Engineering Executive Committee (8/2008-present),
8. (College Committee) Masters of Engineering Degree Task Force/Steering Committee for the
9. College of Engineering (8/2010-present).
10. (College Committee) Jaehne Endowment Com for College of Eng. (8/2010-present).
11. (College Committee) COE Undergraduate Admission Committee (8/2011-present).
12. (College Committee) COE Broadening Participation Committee (12/2011-present).
13. (CEE Committee) Faculty search committee for Resilient Systems (9/2013-present).

(PAST COMMITTEE SERVICE)

1. (College Committee) Undergraduate Studies Committee (8/2009-8/2012),
2. (College Committee) Common First Year Committee (8/2009-8/2012)
3. (College Committee) Advisory Com. for the Eng. Systems Research Center (8/2002-8/2005),
4. (College Committee) Comp. Engineering Sciences Review Committee (8/2002-8/2009),
5. (College Committee) Ad Hoc Com. for a Comp. Engineering Sciences (8/2002-8/2008),
6. (College Committee) Special Task Force on COE Course Consol. (Chair, 8/2009-8/2010).

(3) SERVICE TO BERKELEY CAMPUS:

(ACTIVE COMMITTEE SERVICE)

1. (Campus Committee) Cal Teach Faculty Advisory Committee (Appointed 3/2015-present)
2. (Academic Senate Committee) UC Berk. Diversity, Equity and Climate Com. (8/2014-present)
3. (Campus Committee) Executive Council for the Des. Emph. In CSE (Elected 8/2008-present)
4. Member, Applied Science and Technology Graduate Group (8/2004-present),
5. (Campus Committee) AS & T Admissions Committee (8/2006-present),
6. AS & T Graduate Diversity Advisor (8/2007-present),
7. CS & E (Computational Science and Engineering) Head Graduate Advisor (8/2012-present),
8. CS & E (Computational Science and Engineering) Faculty Advisor (8/2012-present),
9. CS & E (Computational Science and Engineering) Equity Advisor (8/2012-present),
10. CS & E (Computational Science and Engineering) Grad. Stud. Equity Adv. (8/2012-present),
11. (Campus Committee)AS & T (elected) Executive Committee (8/2007-present),
12. (Campus Committee)campus ad-hoc review committee for tenure (2016).
13. Campus Packard Fellowship Selection Committee (2017)

(4) SERVICE TO THE UNIVERSITY OF CALIFORNIA:

(ACTIVE COMMITTEE SERVICE)

1. (UC System-wide) External adv. Board, San Diego Supercomput. Cent. (1/05-08/10, 1/2015-pres)
2. Faculty advisor for Regent's and Chancellor's (RC) Sch. and Cal Op Schol. Prog. (8/2010-pres)
3. Reviewer for UC systemwide tenure and promotion cases

(PAST COMMITTEE SERVICE)

1. (Ac. Sen. Comm.) UC Berk Graduate Council (8/2008-8/2014)
2. (Ac. Sen. Comm.) UC Berk Grad. Coun. Interdiscip. Com. (8/2009- 8/2010), (8/2011-8/2014)
3. (UC System-wide) Supercomputer time resource allocator for UC Berkeley (8/2006-8/2011)
4. (Academic Senate Committee)Graduate Division's Fellowship Adv. Board (8/2006-8/2012),
5. (Academic Senate Comm.)Working Group on Online Graduate Degrees (03/2010-08/2010),
6. (Academic Senate Comm.) Working Group on Online Grad. Degrees (01/2012-08/2013)

PRO BONO WORK: Engineering consultant for the ABC news program "7 On Your Side", which were televised here:

1. Pro bono as an engineering consultant for the ABC news on spontaneously shattering of sunroofs. Located here: <http://abc7.com/archive/8026317>
2. Pro bono as an engineering consultant for the ABC news on exploding shower doors made of tempered safety glass. Located here: <http://abc30.com/archive/9313662/>
3. Pro bono as an engineering consultant for the ABC news on a faulty baby zipper device from a sleeping bag. Located here: <http://abc7news.com/archive/8433331/>
4. UC Berkeley Zero Waste Project: <http://news.berkeley.edu/2017/02/15/3d-printer-filament-reclamation-project/>

ATHLETIC HONORS: Former Member of the United States Junior Table Tennis Team, Former U.S. Junior Olympic Table Tennis Silver Medalist, Former Louisiana State Mens Table Tennis Doubles and Singles

Champion.

CONSULTANT/ADVISOR FOR: Siemens, Apple, Boeing, Samsung, Lawrence Livermore National Labs, Lawrence Berkeley National Labs, Polaronyx, SkyH2O, Type-A Machines

BRIEF ZOHDI BIOGRAPHY: Tarek I. Zohdi received his Ph.D. in 1997 in Computational and Applied Mathematics from the University of Texas at Austin. He was a post-doctoral fellow at the Technical University of Darmstadt in Germany from 1997 to 1998 and then a lecturer (C2-Oberingenieur) at the Gottfried Leibniz University of Hannover in Germany from 1998 to 2001, where he received his Habilitation in General Mechanics. Approximately one out of every twenty Ph.D holders in Germany is allowed to proceed with a Habilitation. It is the highest academic degree in Germany and is usually required to obtain the rank of full Professor there and in other parts of Europe. In July 2001, he became an Assistant Professor at the University of California, Berkeley, in the Department of Mechanical Engineering. He was promoted to Associate Professor in July 2004 and to Full Professor in July 2009. In July 2012, he was appointed Chair of the Designated Emphasis Program in Computational and Data Science and Engineering (DE-CSE) at UC Berkeley. Previously, he has served as Chair of the Engineering Science Program at UC Berkeley (2008-2012) and Vice-Chair for Instruction in the Department of Mechanical Engineering (2009-2012). He is currently a Chancellors Professor of Mechanical Engineering and holder of the W. C. Hall Family Endowed Chair in Engineering. He also holds a Staff Scientist position at Lawrence Berkeley National Labs and an Adjunct Scientist position at the Children's Hospital Oakland Research Institute. In 2017, he was awarded University of California, Berkeley Distinguished Teaching Award. This is the highest award for teaching in the University.

His main research interests are in micromechanical material design, particulate flow and the mechanics of high-strength fabric, with emphasis on computational approaches for advanced manufacturing and nonconvex multiscale-multiphysics inverse problems, in particular addressing the important issue of how large numbers of micro-constituents interact to produce macroscale aggregate behavior. He has published over 135 archival refereed journal papers and seven books: (a) Introduction to computational micromechanics (T. Zohdi and P. Wriggers, Springer-Verlag), (b) An introduction to modeling and simulation of particulate flows (T. Zohdi, SIAM), (c) Electromagnetic properties of multiphase dielectrics: a primer on modeling, theory and computation (T. Zohdi, Springer-Verlag), (d) Dynamics of charged particulate systems: modeling, theory and computation (T. Zohdi, Springer-Verlag) (e) A finite element primer for beginners-the basics (T. Zohdi, Springer-Verlag), (f) Modeling and simulation of functionalized materials for additive manufacturing and 3D printing: continuous and discrete media (T. Zohdi, Springer-Verlag) and (g) A finite element primer for beginners-extended version including sample tests and projects (T. Zohdi, Springer-Verlag), as well as four handbook chapters, four encyclopedia chapters and three contributed book chapters. In 2000, he received the Zienkiewicz Prize and Medal, which are awarded once every two years, to one post-graduate researcher under the age of 35, by The Institution of Civil Engineers in London, to commemorate the work of Professor O. C. Zienkiewicz, for research which contributes most to the field of numerical methods in engineering. In 2002, he received the Best Paper of the Year 2001 Award in London, at the Lord's Cricket Grounds, for a paper published in Engineering Computations, pertaining to modeling and simulation of the propagation of failure in particulate aggregates of material. In 2003, he received the Junior Achievement Award of the American Academy of Mechanics. The award is given once a year, to one post-graduate researcher, to recognize outstanding research during the first decade of a professional career. In 2008, he was elected Fellow of the International Association for Computational Mechanics (IACM) and in 2009 he was elected Fellow of the United States Association for Computational Mechanics (USACM). The USACM is the primary computational mechanics organization in the United States and the International Association for Computational Mechanics is the primary international organization in this field. In 2011, he was selected as "Alumnus of the Year" by the Department of Mechanical Engineering at

Louisiana State University (LSU), where he did his undergraduate studies. He serves on the editorial advisory boards of ten international journals. Also, he is an editor of the leading journal Computational Mechanics and co-founder and editor-in-chief of a new journal, Computational Particle Mechanics. He is also an editor of a book series on Computational Mechanics, published by John-Wiley. He has organized or co-organized three international state-of-the-art CISM workshops (International Centre For Mechanical Sciences in 2002, 2005 and 2010) located in the Palazzo del Torso in the center of Udine, Italy, which is funded by UNESCO, the National Research Council of Italy (CNR), the International Union for Theoretical and Applied Mechanics (IUTAM) and the European Mechanics Society (EUROMECH). In 2007, he was co-chair of the Ninth United States National Congress for Computational Mechanics, which is the largest conference in the field in the United States, and one of the largest in the world. Overall, he has organized or co-organized over 25 conferences and workshops. He was elected President of the USACM in 2012, and served from 2012 to 2014. In 2009, he was elected to a six year term as a representative of the USACM on the General Council of the IACM, which is the governing committee of the primary international organization in his field of research. In 2014, he was appointed by the United States National Academy of Sciences and the National Research Council as a member of the United States National Committee for Theoretical and Applied Mechanics (USNC/TAM) representing the United States Association for Computational Mechanics for a four year term. Overall, he has given more than 165 plenary, keynote and contributed lectures at conferences, universities and other research institutions. In addition to his academic credentials, Tarek I. Zohdi has been active in two main industrial areas:

- Modeling and simulation of high-strength fabric: Zohdi has pioneered the computational analysis of high-strength ballistic fabric shielding. Initially, this work was funded by the FAA and Boeing as part of a 10 year (2001-2011) multi-million dollar laboratory and simulation effort to develop ballistic fabric shields for the Boeing 787. The analysis of Zohdi was instrumental in the development of 787 Boeing designs. The work was then applied to the development of new ballistic fabric shielding armor (from 2007-present) with the Army Research Labs (ARL) and the Army High Performance Computing Research Center (AHPARC). In summary, the combined laboratory, modeling and simulation efforts have been instrumental for the development of new types of ballistic fabric shields for the safety and betterment of society.
- Modeling and simulation of highly heterogeneous materials: Zohdi pioneered the computational analysis of particulate functionalized materials in multiphysical regimes. This work has been continuously funded by a number of industries, most notably for power-generation materials in harsh environments such as thermal barrier turbine blade coating materials (CMCs: Ceramic Matrix Composites) and high-voltage electromagnetic generator (dielectric) materials, such as End Corona Protection systems. This work has been a direct industrial outgrowth of his pioneering book: Introduction to computational micromechanics (T. Zohdi and P. Wriggers, Springer-Verlag).

Also, recently, he was appointed the Director of the Northern California Regional Manufacturing Demonstration Center; see

- <http://engineering.berkeley.edu/2016/06/california-new-headquarters-smart-manufacturing-institute>
- <http://www.me.berkeley.edu/about/news/president-obama-announces-winner-new-smart-manufacturing-innovation-institute-competition>
- <http://nnmi.berkeley.edu/members.html>

which is part of a 140,000,000 dollar consortium of universities and companies geared towards smart clean manufacturing. He was also recently appointed the Director of the Northern California Regional Robotics and Manufacturing Center; see

- <http://www.me.berkeley.edu/about/news/dod-announces-award-new-advanced-robotics-manufacturing-arm-innovation-hub>
- <http://engineering.berkeley.edu/2017/01/berkeley-regional-center-new-robotics-manufacturing-consortium>

which is part of a 253,000,000 dollar consortium of universities and companies geared towards robotic manufacturing.