**Biography: David J. Steigmann**

**Office**

Office: (510) 643-3165; 6133 Etcheverry Hall, University of California, Berkeley, CA. 94720 U.S.A.;
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**Education**

-Ph.D. (1988) Brown University, Providence, R.I. (Thesis: *Tension-field Theory*. Adviser: A.C. Pipkin, Division of Applied Mathematics).
-M.Sc. (1982) M.I.T., Cambridge, MA. (Thesis: *Numerical Simulation of Transient Finite Deformations of Structures*. Adviser: E.A. Witmer, Department of Aeronautics and Astronautics).
-B.Sc. (1979) U. of Michigan, Ann Arbor, MI. (Department of Aeronautics and Astronautics).

**Research Interests**

-Mechanics of thin films and thin-film/substrate systems
-Electromagnetic phenomena in solid mechanics; applications to thin-film/substrate problems
-Surface stress, capillary phenomena, biological cell membranes, surfactant films
-Diffusive phenomena
-Finite elasticity
-Variational methods and elastic stability
-Tensile (membrane) structures
-Continuum mechanics
-Numerical analysis of ill-conditioned structural problems
-Thin shells
-Plasticity theory

**Honors and Awards**

-Berkeley Junior Faculty Fellowship (1997).
-**Fellow of the Society of Engineering Science** (Elected 2010).
-Midwest Mechanics Tour (2009-10 academic year).
-Visiting Research Professor, 2013 and 2015: Universita di Roma, la Sapienza.
-**Levi-Civita Prize**, 2013, for the Mathematical and Physical Sciences (2013), for '…the high quality and the undisputed originality of the scientific research of eminent Italian or foreign scientists.'
-**Engineering Science Medal**, awarded by the Society of Engineering Science, for 'Singular Contributions to Engineering Science' (2013).
-Special issue of Continuum Mechanics and Thermodynamics, dedicated to D.J. Steigmann (http://link.springer.com/journal/161/28/1/page/1).
-Diamond Jubilee International Fellowship, 2016: Southampton University
-Acta Mechanica Sinica 2017 Best Paper Award
-Mentorship Award, Department of Mechanical Engineering, UC Berkeley (2018).
-**Koiter Medal**, awarded by the American Society of Mechanical Engineers (2026), for 'Sustained and fundamental contributions to solid mechanics in the areas of surface elasticity, finite elasticity theory, and the rigorous and consistent derivation of Koiter's shell theory from 3D elasticity theory.'

**Editorial Boards**

ZAMP (Zeitschrift fur Angewandte Mathematik und Physik): Solid Mechanics Editor
Mathematics and Mechanics of Solids: Editorial Board: Editor-in-Chief.
Journal of Elasticity
Mathematics and Mechanics of Complex Systems

Journal of the Mechanics of Materials and Structures
International Journal of Solids and Structures
Mechanics Research Communications
Journal of Peridynamics and Nonlocal Modeling

**Teaching:**

*Graduate:*

Linear Elasticity (ME 282), Elastic Stability (ME 288), Finite Elasticity (ME 284), Shell Theory (ME 289), Electrodynamics of Continuous Media (ME 285C), Engineering Rheology (ME 285D), Mechanics and Physics of Lipid Bilayers (ME 285E), Plasticity Theory (ME 286), Introduction to Solid Mechanics (ME 224), Fracture Mechanics (ME 225).

*Undergraduate:*

Continuum Mechanics (ME 185), Engineering Analysis (E 117), Introduction to Solid Mechanics (MEC 85), Composite Materials (ME 127).