

Curriculum Vitae: Yashashree Kulkarni

POSITION AND TITLE

Assistant Professor

Department of Mechanical Engineering, University of Houston, Houston, TX

EDUCATION

2002 – 2006

Doctor of Philosophy, Applied Mechanics, June 2007

California Institute of Technology

2001 – 2002

Master of Science, Applied Mechanics, June 2002

California Institute of Technology

1997 – 2001

Bachelor of Technology, Civil Engineering, August 2001

Indian Institute of Technology Bombay, India

PROFESSIONAL EXPERIENCE

March 2009 – Present

Assistant Professor

Department of Mechanical Engineering, University of Houston, Houston, TX

2007 – 2009

Postdoctoral Researcher

Department of Structural Engineering, University of California San Diego, La Jolla, CA

AWARDS AND HONORS

- Charles D. Babcock Teaching Assistant Award, California Institute of Technology (June 2005).
- Robert T. and Pearl Knapp fellowship, California Institute of Technology (2001–2002).
- Institute Silver Medal, IIT Bombay (August 2001).

PUBLICATIONS

- Y. Kulkarni, and R.J. Asaro, Are some nano-twinned fcc metals optimal for strength, ductility, and grain stability, *Acta Materialia* (2009), doi:10.1016/j.actamat.2009.06.047.
- Y. Kulkarni, R.J. Asaro, and D. Farkas, Are nano-twinned structures in fcc metals optimal for strength, ductility, and grain stability, *Scripta Materialia*, 60 (2009), 532–535.
- R.J. Asaro, D. Farkas, and Y. Kulkarni, The Soret effect in diffusion in crystals, *Acta Materialia*, 56 (2008), 1243–1256.
- R.J. Asaro, and Y. Kulkarni, Are rate sensitivity and strength effected by cross-slip in nano-twinned fcc metals, *Scripta Materialia*, 58 (2008), 389–392.

- Y. Kulkarni, J. Knap, and M. Ortiz, A variational approach to coarse-graining of equilibrium and non-equilibrium atomistic description at finite temperature, *Journal of the Mechanics and Physics of Solids*, 56 (2008), 1417–1449.

RESEARCH GRANTS

- TcSUH (Texas Center for Superconductivity University of Houston), \$15,000 (2009 – 2010).

SELECTED PRESENTATIONS

- *An atomistic study of deformation mechanisms in nano-twinned structures*, 10th US National Congress on Computational Mechanics (Columbus, July 2009).
- *Atomistic simulations of deformation mechanisms in nano-structured metals*, Society of Engineering Science Technical Meeting (Champaign, September 2008).
- *Equilibrium and non-equilibrium finite temperature quasicontinuum method*, 9th US National Congress on Computational Mechanics (San Francisco, July 2007).
- *Multiscale modeling: A computational paradigm in nanotechnology*, Indian Institute of Technology Roorkee, India (Roorkee, December 2006).
- *Finite temperature quasicontinuum method using formal asymptotics*, 7th World Congress on Computational Mechanics (Los Angeles, July 2006).
- *Coarse-graining of atomistic description at finite temperature*, Los Alamos National Laboratory (Los Alamos, July 2005).