Robert M. Suter
Curriculum Vitae

Department of Physics
Carnegie Mellon University
Pittsburgh, PA 15213
(412) 268-2982
suter@cmu.edu
Web: http://www.andrew.cmu.edu/user/suter/

Education

Post-doctoral	**IBM T.J. Watson Research Center**, 1979-1981 Advisor: P.M. Horn
Ph.D in Physics	**Clark University**, Worcester, MA, 1978 Advisor: C. Hohenemser (deceased)
BS in Electrical Engineering	**North Carolina State University**, Raleigh, NC June 1970

Positions

Professor of Physics, Carnegie Mellon University	1996 - present
Courtesy Appointment, Department of Materials Science and Engineering, Carnegie Mellon University	2006 - present
Visiting Scientist, Advanced Photon Source Argonne National Laboratory	2013
Director of Undergraduate Program, Department of Physics Carnegie Mellon University	2001 - 2006
Associate Professor of Physics, Carnegie Mellon University	1987 - 1996
Visiting Scientist, Schlumberger-Doll Research	June - August 1986
Visiting Scientist, IBM Research	January - August 1985
Assistant Professor of Physics, Carnegie Mellon University	1981 - 1987
Visiting Scientist, IBM T. J. Watson Research Center	1979 - 1981
Research Associate and Instructor, Clark University	1977 - 1979
Graduate Student, Clark University	1972 - 1977
Electronics Engineer, U. S. Patent Office	1970 - 1972

Memberships

American Physical Society
American Association for the Advancement of Science
Materials Research Society
TMS, The Minerals, Metals & Materials Society

Robert M. Suter
Curriculum Vitae

Research Activities

Current Interests:

- Continued development of synchrotron based High Energy X-ray Diffraction Microscopy (HEDM) for the study of microstructures in bulk crystalline and polycrystalline materials.
- Application of HEDM to tracking of thermal responses of metals including defect annealing, grain growth and abnormal grain growth.
- HEDM in-situ studies of the mechanical responses of microstructures including the on-set of defect formation, ductile deformation, void formation and fatigue crack initiation.
- Combined application of near-field HEDM microstructure mapping, far-field HEDM strain mapping and tomography to study a wide variety of materials responses to external stimuli.

Previous areas of activity:

- Phase transitions in ferromagnets studied with Perturbed Angular Correlations of gamma rays and the Mössbauer Effect
- Thermodynamic and X-ray measurements of order and disorder in one to three atomic layer noble gas thin films
- X-ray and neutron reflectivity applied to monomolecular surfactant layers in complex fluid thin films
- High resolution diffraction from multi-lamellar lipid vesicles.

External Committees / Contributions

- Spokesperson for Sector 1 upgrade scientific case for the Advanced Photon Source Upgrade proposal to the Department of Energy; case to be presented to APS Science Advisory Committee, March 2011. Modified case for modified Upgrade presented October, 2013.
- Advanced Photon Source Proposal Review Panel for "Scattering – Applied Materials," (2009 - present, chair beginning 2011).
- Advanced Photon Source Users' Organization Steering Committee member (2010 - present).
- Reviewer for National Science Foundation and Department of Energy programs, Phys. Rev. Lett., Phys. Rev. B, Acta Materialia, and Philosophical Magazine.

Robert M. Suter
Curriculum Vitae

Collaborators, Students, Internal Committees

Current and Recent Collaborators:

1. Jonathan Almer (Advanced Photon Source, Argonne National Laboratory)
2. Akbar Bagri (MIT)
3. Joel Bernier (Lawrence Livermore National Laboratory)
4. John Bingert (Los Alamos National Laboratory)
5. Andras Borebly (Ecole Nationale Suprieure des Mines de Saint-Etienne, France)
6. Michael Demkowicz (MIT)
7. Dean Haeffner (Advanced Photon Source, Argonne National Laboratory)
8. Peter Kenesei (Advanced Photon Source, Argonne National Laboratory)
9. Ulrich Lienert (Petra-III, Desy, Hamburg)
10. Matthew Miller (Cornell - Aerospace and Mechanical Engineering)
11. Greg Rohrer (CMU - Materials Science and Engineering)
12. Anthony D. Rollett (CMU - Materials Science and Engineering)
13. Jay Schuren (AFRL)
14. Paul Shade (AFRL)
15. Ashley Spear (U. Utah)
16. Leyun Wang (Shanghai Jiao Tong University)
17. Euan Wielewski (U. Scotland)

Graduate Students and Research Associates:

1. Rulin Chen (current)
2. Yufeng Shen (current)
3. He Liu (current)
4. David Menasche (PhD 2016)
5. Siddarth Maddali (PhD 2016)
6. Euan Wielewski (Post-doc 2013-2014)
7. Xi Tan (PhD 2014)
8. Jonathan Lind (PhD 2013)
9. Reeju Pokharel (PhD 2012; co-advised with A. D. Rollett)
10. Christopher Hefferan (PhD 2012)
11. Shiu-Fai (Frankie) Li (PhD 2011)
12. Dimitar Dragonov (PhD 2006; co-advised with S. Garoff)
13. Daniel Hennessy (PhD 2006)
14. Changshi Xiao (PhD 2006)
15. Nilay K. Roy (Post-doc 2004-2005)
16. Barry Luokkala (PhD 2001; co-advised with S. Garoff)
17. Ralf Heilmann (PhD 1996)
18. Joseph Shindler (PhD 1992)
19. Robert Hainsey (PhD 1991)
20. Nicholas Colella (PhD 1988)