DIVISION OF BIOMEDICAL ENGINEERING
- Prospective Students
- Education
- Admissions
- Research
- People
- News
- Events
- Employment & Internships
- Facilities & Resources
- Contact BME

Go to DSE Home

Search This Site GO

OHSU QUICK LINKS
- Academic Technology
- Departments & Divisions
- Find Degree Programs
- Academic Calendar
- Academic Affairs

BME People

Sean J Kirkpatrick

E-mail: skirkpat@bme.ogi.edu
Phone: 503-748-1320
Web Site: http://www.bme.ogi.edu/biomedicaloptics/kirkpatrick/

Current Appointments

Associate Professor

Education

BS, Gannon University, 1986
PhD, Univesity of Miami, 1992
Postdoctoral Fellow., The Johns Hopkins University, 1992-1994

Department(s)

Biomedical Engineering

Research Interests

My primary research effort focuses on the physics of light scattering in biological tissues (and fluids) and how to exploit this scattered light to gain insight into the dynamcis, structure, and mechanics of biological tissues. Primary focus is on the origins and applications of the speckle phenomenon. Research on speckle includes numerical simulations, statistical analysis of speckle, and the use of speckle in optical elastography.

Research Project(s)

Acousto-optical elastography

Laser speckle measurements of mechanical properties

Research Group(s)

Biomedical Optics

Selected Publications

Wang, R.K. and Kirkpatrick, S.J., Tissue Doppler Optical Coherence Elastography for Strain Rate and Strain Mapping of Soft Tissue in Real Time, Appl. Physics Lett. 89, 144103, 2006

Kirkpatrick, S.J., Wang, R.K., and Duncan, D.D., Kulesz-Martin, M., and Lee, K., Imaging the mechanics of skin lesions by in vivo acousto-optical elastography, Opt. Express, 14(21) 9771-9779, 2006.

Kirkpatrick, S.J., Wang, R.K., and Duncan, D.D., OCT-based elastography for large and small deformations, Opt. Express 14(24) 11585-11597, 2006.

Wang, R.K., Kirkpatrick, S.J., and Hinds, M.T., Phase-sensitive optical coherence elastography for mapping tissue microstrains in real time, Appl. Physics Lett. 90, 164105, 2007.

Oregon Health & Science University is dedicated to improving the health and quality of life for all Oregonians through excellence, innovation and leadership in health care, education and research.