CURRICULUM VITAE

MARTIN JACKSON

Contact Information

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Education

Ph. D in Physics, University of Oregon, 1990.

M.S. in Physics, University of Oregon, 1985.

B.S. in Physics and Mathematics, University of Puget Sound, 1984.

Relevant Work Experience

Professor, Department of Mathematics and Computer Science, University of Puget Sound, September 2002–present.

Associate Professor, Department of Mathematics and Computer Science, University of Puget Sound, September 1996–August 2001.

Assistant Professor, Department of Mathematics and Computer Science, University of Puget Sound, September 1990–August 1996.

Acting Director, Academic Challenge Program, University of Puget Sound, Summer 2001.

Teacher, Academic Challenge Program, University of Puget Sound, Summers 1992-2000.

Instructor, Department of Mathematics, University of Oregon, September 1988–March 1990.

Courses Taught Recently

Integrated Physics and Calculus (MATH 122/PHYS 121, MATH 221/PHYS 122)
This is a team-taught course integrating introductory physics with second and third semesters of calculus sequence.

Calculus sequence (MATH 121, 122, 221)

Linear algebra (MATH 232)

Ordinary differential equations (MATH 301)

Partial differential equations (MATH 302 (formerly MATH 341))

Advanced calculus sequence (MATH 321/322)

Complex analysis (MATH 352)

Textbook Publications

Andrew F. Rex and Martin Jackson, *Integrated Physics and Calculus*, Addison Wesley Longman, 1999 (Volume 1), 2000 (Volume 2).

Refereed Publications

M.J. Moelter, J. Evans, G. Elliot, and M. Jackson, "Electric potential in the classical Hall effect: An unusual boundary-value problem," American Journal of Physics, **66**, 668-676, 1998

J.S. Wettlaufer, M. Jackson, and M. Elbaum, "A geometric model for anisotropic crystal growth," Journal of Physics A, **27**, 5957–5968, 1994.

J. Isenberg and M. Jackson, "Ricci flow on minisuperspaces and the geometry-topology problem," in *Directions in General Relativity*, Volume 1, B.L. Hu and T.A. Jacobson (Eds.), Cambridge University Press, 1993.

J. Isenberg and M. Jackson, "Ricci flow of locally homogeneous geometries on closed manifolds," Journal of Differential Geometry, **35**, 723–741, 1992.

J. Isenberg, M. Jackson, and V. Moncrief, "Evolution of the Bel-Robinson energy in Gowdy $T^3 \times \mathbb{R}$ spacetimes," Journal of Mathematical Physics, **31**, 517–519, 1990.

M. Carfora, J. Isenberg, and M. Jackson, "Convergence of the Ricci flow for a class of Riemannian metrics with indefinite Ricci curvature," Journal of Differential Geometry, **31**, 249–263, 1990.

Awards and Grants

Tom Davis Teaching Excellence Award, University of Puget Sound, 2002.

Fund for the Improvement of Postsecondary Education Grant No. P116A40024 (Andy Rex, PI), provided funds for release units and sabbatical leave to develop integrated calculus/physics course, 1994-1997.

Office of Naval Research Grant No. NOOO1-94-1-0120 (John Wettlaufer, PI), provided summer salary for research through University of Washington subcontract, 1994-1997.

Martin Nelson Award for Summer Research, provided summer salary for research and funding for travel to an international conference on general relativity, Summer 1992.

University Enrichment Committee Release Unit, provided one unit of release time from teaching to engage in research, Spring 1992.

Recent Presentations

"The shapes of soap films, soap bubbles, and the universe," Ideas as Work and Play, Freshman Orientation, University of Puget Sound, August 2001.

"Technology and state space in an integrated calculus and physics course," International Conference on Technology in Collegiate Mathematics, San Francisco, November 1999.

"A course and text integrating calculus and physics," Joint Mathematics Meetings, San Antonio, January 1999.

"A mathematician looks at cosmology," Daedelus Society, University of Puget Sound, December 1998.

"A course combining calculus and introductory physics," Joint Mathematics Meetings, San Diego, January 1997.

"Integrating calculus and physics courses," panel presentation with D. Johnson (Diablo Valley College) and P. Zenor (Auburn University), Seattle Mathfest, August 1996.