

# Physics

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## Richard P. Taylor, Department Head

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Physics, the most basic of the natural sciences, is concerned with the discovery and development of the laws that describe our physical universe. This endeavor serves, also, to directly benefit humankind: integrated circuits found in computers, mobile phones, and solar cells, lasers in DVD players and computer mice, and the Internet itself were developed from fundamental physics discoveries.

## Faculty

Benjamín Alemán, associate professor (experimental condensed matter, optical physics). BS, 2004, Oregon; MA, 2010, PhD, 2011, California, Berkeley. (2013)

David Allcock, assistant professor (ion trapping and quantum information). MS, 2007, PhD, 2012, Oxford. (2019)

Jayanth Banavar, professor (statistical physics). BS, 1972, MS, 1974, Bangalore University, PhD, 1978, University of Pittsburgh. (2019)

Dietrich Belitz, professor (condensed matter theory). Dipl Phys, 1980, Dr.rer.nat., 1982, Technical University Munich. (1987)

Bryan S. Boggs, senior lecturer (optical physics). BS, 1995, MS, 1996, PhD, 2012, Oregon. (2013)

Gregory D. Bothun, professor (astronomy). BS, 1976, PhD, 1981, Washington (Seattle). (1990)

James E. Brau, Philip H. Knight Professor (experimental elementary particle physics). BS, 1969, United States Air Force Academy; MS, 1970, PhD, 1978, Massachusetts Institute of Technology. (1988)

Spencer Chang, associate professor (theoretical high-energy physics). BS, 1999, Stanford; PhD, 2004, Harvard. (2010)

Timothy Cohen, associate professor (elementary particle theory). BS, 2006, MS, 2009, PhD, 2011, Michigan, Ann Arbor. (2015)

Eric Corwin, associate professor (biophysics, soft condensed matter). BA, 2001, Harvard; PhD, 2007, Chicago. (2010)

Ben Farr, assistant professor (gravitational waves). BS, 2009, Rochester Institute of Technology; PhD, 2014, Northwestern. (2017)

R. Scott Fisher, senior lecturer (astronomy). BS, 1993, PhD, 2001, Florida. (2012)

Raymond E. Frey, professor (experimental elementary particle physics). BA, 1978, California, Irvine; MS, 1981, PhD, 1984, California, Riverside. (1989)

James N. Imamura, professor (astrophysics); director, Institute of Theoretical Science. BA, 1974, California, Irvine; MA, 1978, PhD, 1981, Indiana. (1985)

Laura Jeanty, assistant professor (high-energy physics). BS, 2006, Yale; MS, 2009, PhD, 2013, Harvard. (2018)

Stephen D. Kevan, professor (solid state physics). BA, 1976, Wesleyan; PhD, 1980, California, Berkeley. (1985)

Graham Kribs, professor (elementary particle theory). BAsC, 1993, Toronto; PhD, 1998, Michigan, Ann Arbor. (2004)

Dean W. Livelybrooks, senior instructor (geophysics). BS, 1977, Massachusetts Institute of Technology; MS, 1984, PhD, 1990, Oregon. (1996)

Stephanie Majewski, associate professor (experimental elementary particle physics). BS, 2002, Illinois, Urbana-Champaign; PhD, 2007, Stanford. (2012)

Benjamin McMorran, associate professor (experimental condensed matter, optical physics). BS, 2000, Oregon State; MS, PhD, 2009, Arizona. (2011)

Stanley J. Micklavzina, senior instructor (physics education). BS, 1982, MS, 1985, Oregon. (1985)

Jens Nöckel, associate professor (optical physics). Dipl. Phys., 1992, Hamburg; PhD, 1997, Yale. (2001)

Raghuveer Parthasarathy, Alec and Kay Keith Professor (condensed matter physics, biophysics). BA, 1997, California, Berkeley; PhD, 2002, Chicago. (2006)

Jayson Paulose, assistant professor (condensed matter theory). AB, 2007, Princeton; SM, 2009, PhD, 2013, Harvard. (2018)

Michael G. Raymer, Philip H. Knight Professor (quantum optics and optical physics). BA, 1974, California, Santa Cruz; PhD, 1979, Colorado. (1988)

William C. Scannell, lab instructor (physics education). BS, 2002, MS, 2004, PhD, 2010, Oregon. (2016)

James M. Schombert, professor (astronomy). BS, 1979, Maryland; MPhil, 1982, PhD, 1984, Yale. (1996)

Brian J. Smith, professor (quantum optics, optical physics). BA, 2000, Gustavus Adolphus College; PhD, 2007, Oregon. (2015)

Daniel Steck, associate professor (atom optics and nonlinear dynamics). BS, 1995, Dayton; PhD, 2001, Texas, Austin. (2004)

David M. Strom, professor (experimental elementary particle physics). BA, 1980, St. Olaf; PhD, 1986, Wisconsin, Madison. (1991)

Richard P. Taylor, professor (solid state physics). BS, 1985, PhD, 1988, Nottingham. CAD, 1995, Manchester School of Art; MA, 2000, New South Wales. (1999)

John J. Toner, professor (condensed matter theory). BS, 1977, Massachusetts Institute of Technology; MA, 1979, PhD, 1981, Harvard. (1995)

Eric Torrence, professor (experimental elementary particle physics). BS, 1990, Washington (Seattle); PhD, 1997, Massachusetts Institute of Technology. (2000)

Tristan S. Ursell, assistant professor (condensed matter physics, biophysics). BS, 2003, Rensselaer Polytechnic Institute; MS, 2003, PhD, 2009, California Institute of Technology. (2014)

Steven J. van Enk, professor (theoretical optical physics). MSc, 1988, Utrecht; PhD, 1992, Leiden. (2006)

Hailin Wang, professor (quantum optics); Alec and Kay Keith Chair. BS, 1982, Science and Technology (China); MS, 1986, PhD, 1990, Michigan. (1995)

David Wineland, research professor (atomic spectroscopy, quantum information, quantum-limited metrology). BA, 1965, California, Berkeley; MA, 1966, PhD, 1970, Harvard. (2018)

Tien-Tien Yu, assistant professor (high-energy physics). AB, 2007, Chicago; PhD, 2013, Wisconsin, Madison. (2017)

## Research Faculty and Staff

Robert Schofield, research associate professor (nuclear biophysics). BS, 1982, Brigham Young; PhD, 1990, Oregon. (1993)

Nikolai Sinev, senior research associate (experimental high energy physics). BS, 1968, PhD, 1974, Moscow State. (1993)

Frank Vignola, senior research associate (solar energy). BA, 1967, California, Berkeley; MS, 1969, PhD, 1975, Oregon. (1977)

## Emeriti

Paul L. Csonka, professor (elementary particle theory). PhD, 1963, Johns Hopkins. (1968)

Nilendra G. Deshpande, professor (elementary particle theory). BSc, 1959, MSc, 1960, Madras; PhD, 1965, Pennsylvania. (1975)

Rudolph C. Hwa, professor emeritus. BS, 1952, MS, 1953, PhD, 1957, Illinois; PhD, 1962, Brown. (1971)

Harlan Lefevre, professor emeritus. BA, 1951, Reed; PhD, 1961, Wisconsin. (1961)

David K. McDaniels, professor emeritus. BS, 1951, Washington State; MS, 1958, PhD, 1960, Washington (Seattle). (1963)

John T. Moseley, professor emeritus. BS, 1964, MS, 1966, PhD, 1969, Georgia Institute of Technology. (1979)

George W. Rayfield, professor emeritus. BS, 1958, Stanford; PhD, 1964, California, Berkeley. (1967)

David R. Sokoloff, professor emeritus. BA, 1966, City University of New York, Queens; PhD, 1972, Massachusetts Institute of Technology. (1978)

*The date in parentheses at the end of each entry is the first year on the University of Oregon faculty.*

## Undergraduate Programs

### Major - Bachelor's Degree

- Physics (BA/BS) (<http://catalog.uoregon.edu/arts-sciences/natural-sciences/physics/ug-physics/>)

### Minor

- Physics (<http://catalog.uoregon.edu/arts-sciences/natural-sciences/physics/min-physics/>)

## Graduate Programs

### Major - Master's Degree

- Physics (MS) (<http://catalog.uoregon.edu/arts-sciences/natural-sciences/physics/mas-physics/>)

### Major - Doctoral Degree

- Physics (PhD) (<http://catalog.uoregon.edu/arts-sciences/natural-sciences/physics/phd-physics/>)