

Faculty & Staff Notes

Honors & Awards



Sarah Ballard



Zachory Berta-Thompson

Sarah Ballard, Torres Fellow for Exoplanetary Research, MIT Kavli Institute for Astrophysics & Space Research, was named a 2015 L'Oréal USA For Women in Science Fellow.

Zachory Berta-Thompson, Torres Postdoctoral Fellow, MIT Kavli Institute for Astrophysics & Space Research, received a 2016 MIT School of Science Infinite Kilometer Award.

Edmund Bertschinger, Professor of Physics and Institute Community and Equity Officer, was elected a Fellow of the American Association for the Advancement of Science; and received a Committed to Caring Award from the MIT Office of the Dean for Graduate Education.

Robert J. Birgeneau, Professor of Physics Emeritus and Chancellor Emeritus, University of California, Berkeley, received the National Science Board's 2016 Vannevar Bush Award; and the 2015 Darius and Susan Anderson Distinguished Service Award of the Institute of Governmental Studies, University of California, Berkeley.

Ivan Amos Cali, Research Scientist, Laboratory for Nuclear Science, received a 2016 MIT School of Science Infinite Kilometer Award.

Arup Chakraborty, Robert T. Haslam (1911) Professor in Chemical Engineering, Professor of Physics, Biological Engineering, and Chemistry, was elected to the National Academy of Sciences.

Joseph Checkelsky, Assistant Professor of Physics, received a 2016 National Science Foundation CAREER award.

Ibrahim Cissé, Assistant Professor of Physics, was named the Class of 1922 Career Development Chair.

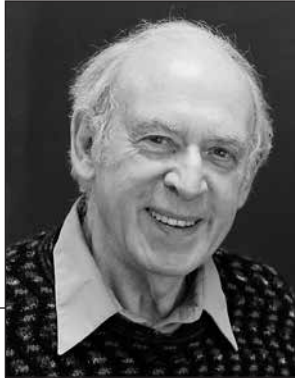
Ross Corliss, Postdoctoral Associate, Laboratory for Nuclear Science, received a 2016 MIT School of Science Infinite Kilometer Award.

Peter Dourmashkin, Senior Lecturer in Physics, received a 2016 MIT Teaching with Digital Technology Award.

Mildred Dresselhaus, Institute Professor and Professor of Physics and Electrical Engineering Emerita, received honorary doctorates from ETH Zürich, Tohoku University (Japan), Brandeis University, and the University of Oxford.

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Jerome Friedman



Liang Fu



Jacqueline Hewitt

Nikta Fakhri, Assistant Professor of Physics, received a 2016 Human Frontier Science Program Career Development Award.

Joseph Formaggio, Associate Professor of Physics and Division Head, Experimental Nuclear and Particle Physics, shared a 2016 Breakthrough Prize in Fundamental Physics as a member of the Sudbury Neutrino Observatory collaboration.

Physics World, the member magazine of the Institute of Physics (UK), shortlisted the research of MIT physics faculty **Joseph Formaggio** (Project 8 collaboration), **Liang Fu** (Weyl fermions), **John Joannopoulos** (Weyl fermions), **Marin Soljačić** (Weyl fermions), and **Martin Zwierlein** (fermionic microscope) for its 2015 Breakthrough of the Year.

Anna Frebel, the Silverman (1968) Family Career Development Assistant Professor of Physics, published a new book on her hunt for stellar artifacts, *Searching for the Oldest Stars: Ancient Relics from the Early Universe* (Princeton University Press, 2015).

Jerome Friedman, Institute Professor and Professor of Physics Emeritus and Nobel Laureate, was awarded a 1st Class, Grand Cordon, of the Order of the Rising Sun, by the government of Japan.

Liang Fu, Assistant Professor of Physics, received the 2016 New Horizons in Physics Prize.

Or Hen, Pappalardo Fellow in Physics, was awarded the 2015 Israel Physical Society Prize for a Graduate Student in Experimental Physics; and received an Intensity Frontier Fellowship from the Fermi National Accelerator Laboratory.

Jacqueline Hewitt, Professor of Physics and Director, MIT Kavli Institute for Astrophysics & Space Research, was elected to the American Academy of Arts and Sciences.

David Kaiser, Germeshausen Professor of the History of Science, Director of the Program in Science, Technology, and Society, and Professor of Physics, was selected to deliver the George Sarton Memorial Lecture, a plenary address at the annual meeting of the American Association for the Advancement of Science.



Yen-Jie Lee



Miklos Porkolab

Wolfgang Ketterle, John D. MacArthur Professor of Physics; Director, MIT-Harvard Center for Ultracold Atoms; Associate Director, Research Laboratory of Electronics; and Nobel Laureate, was awarded a 2015 MIT School of Science Teaching Prize for Graduate Education; named a 2015 Thomson Reuters Highly Cited Researcher in Physics; received a National Security Sciences and Engineering Faculty Fellowship; and gave special lectureships at the MPI-Stuttgart, Germany (Max Planck Lecture), SUNY-Genesco, NY (Robert “Duke” Sells Lecture), and SUNY-Buffalo, NY (3rd Ta-You Wu Lecture).

Yen-Jie Lee, Assistant Professor of Physics, was named the Class of 1958 Career Development Chair, and awarded a 2016 Sloan Research Fellowship.

Michael Leyton, Research Affiliate, Laboratory for Nuclear Science, received a 2016 MIT School of Science Infinite Kilometer Award.

Seth Lloyd, Professor of Mechanical Engineering and Engineering Systems and Physics, and Director, Center for Extreme Quantum Information Theory, was awarded the Nam P. Suh Professorship of the Department of Mechanical Engineering.

Scott Morley, Administrative Officer, Center for Theoretical Physics, received a 2016 MIT School of Science Infinite Mile Award.

Efrén Navarro-Moratalla, Postdoctoral Fellow, received a 2016 MIT School of Science Infinite Kilometer Award.

Miklos Porkolab, Professor of Physics, was elected an external member of the Hungarian Academy of Sciences.

David E. Pritchard, Cecil and Ida Green Professor of Physics, was named an Outstanding Referee by the American Physical Society.

Saif Rayyan, Lecturer in Physics, received a 2015 Buechner Faculty Award for Teaching of the Department of Physics.

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Iain Stewart



Lindley Winslow

Tracy Slatyer, Assistant Professor of Physics, received a 2015 Buechner Faculty Award for Undergraduate Advising of the Department of Physics.

Iain W. Stewart, Professor of Physics, received a 2015 Buechner Faculty Award for Teaching of the Department of Physics.

Jesse Thaler, Associate Professor of Physics, received a 2015-2016 Harold E. Edgerton Faculty Achievement Award of MIT.

Mark Vogelsberger, Assistant Professor of Physics, was awarded a 2016 Sloan Research Fellowship.

Rainer Weiss, Professor of Physics Emeritus, was one of three winners, along with Ronald Drever and Kip Thorne, both of Caltech, of the 2016 Shaw Prize in Astronomy for “conceiving and designing the Laser Interferometer Gravitational-Wave Observatory (LIGO),” as well as the 2016 Kavli Prize in Astrophysics for the direct detection of gravitational waves; shared a 2016 Special Breakthrough Prize in Fundamental Physics with LIGO collaborators for the “detection of gravitational waves 100 years after Albert Einstein

predicted their existence.” Other leading MIT LIGO team members include physics faculty **Nergis Mavalvala** and **Matthew Evans**, and senior research scientists **David Shoemaker**, **Erik Katsavounidis** and **Peter Fritschel**.

Lindley Winslow, Assistant Professor of Physics, shared a 2016 Breakthrough Prize in Fundamental Physics as a member of the KamLAND collaboration.

Monica Wolf, Administrative Assistant for Experimental Condensed Matter and Biophysics and the Center for Integrated Quantum Materials, received a 2016 MIT School of Science Infinite Mile Award.

Martin W. Zwierlein, Silverman Family Career Development Professor of Physics, was named a 2015 Thomson Reuters Highly Cited Researcher in Physics.



Markus Klute

Promotions

Markus Klute to Associate Professor of Physics with tenure.

Jeremy England to Associate Professor of Physics without tenure.

Nevin Weinberg to Associate Professor of Physics without tenure.

Retirement

Courtesy Science Philanthropy Alliance



Marc A. Kastner [1973-2016]

Marc Kastner, who retired in January 2016, is the president of the Science Philanthropy Alliance, a coalition of leading nonprofit institutions and foundations dedicated to increasing investment in basic science research. Kastner joined MIT in 1973 and was named the Donner Professor of Physics in 1989. He became director of the Center for Materials Science and Engineering in 1993, head of the Department of Physics in 1998 and dean of the School of Science in 2007; he stepped down as dean in 2013.

Kastner's early research focused on the electronic and optical properties of amorphous semiconductors, especially chalcogenide glasses. He and collaborators invented the Valence-Alternation model that relates the electronic properties of these materials to their chemical bonding. Later, together with Robert Birgeneau, he studied the relationship of the magnetic properties of high temperature superconductors to their electronic transport and optical properties. In 1990 Kastner's group fabricated the first semiconductor single-electron transistor, and

in 1998 they discovered the Kondo effect in these nano-structures. The latter is a state in which electrons inside and outside the transistor are quantum mechanically entangled.

Kastner has served as chair of the Solid State Sciences Committee and as chair of the Board on Physics and Astronomy of the National Research Council. He has also served on the Science Advisory Boards of the National Cancer Institute and the Gordon and Betty Moore Foundation. Kastner is a member of the National Academy of Sciences, a fellow of the American Academy of Arts and Sciences, a fellow of the American Physical Society and the American Association for the Advancement of Science. In 1995, he received the David Adler Lectureship Award of the American Physical Society, and in 2000 he won the Oliver E. Buckley Prize of the American Physical Society. Kastner received a BS in chemistry, an MS in physics, and a PhD in physics from the University of Chicago and was a postdoctoral fellow at Harvard University.