

MIT BARRETT PRIZE WINNERS

Year	Winner	Status When Awarded	Advisor/ Nominator	PhD	Current Status and Background	Thesis or Citation Information
1992	Samuel Conner	Graduate student (BS Physics 1982; MS 1984 Earth, Atmospheric, and Planetary Sciences)	B. F. Burke		Left astronomy (was working toward PhD ~1997 at MIT)	1984 SM: "Photometry of Hyperion"
1993	Uros Seljak	Graduate student	Edmund Bertschinger	MIT, 1995, Physics	Professor of physics & astronomy, UCB, and faculty scientist, LBL Berkeley. Studies observational and theoretical cosmology, galaxy large-scale surveys, and weak lensing.	1995 PhD: "Light Propagation in a Weakly Perturbed Expanding Universe"
1994	Craig Wiegert	BS 1994 Physics	Paul Schechter	University of Chicago, 2003, Physics	Assistant professor, Department of Physics and Astronomy, University of Georgia. Works on physics curriculum development and physics education research, esp. in educational technology. Dept. is overhauling undergraduate curriculum and will include a new course in waves and oscillations (inspired in part by the 8.03 class that used Bekefi and Barrett's textbook). Physics advisor for undergrad program.	1994 BS: "A Search for Horizontal Branch Star Candidates in the Galactic Bulge"
1995	Eugene Chiang	BS 1995 Physics	Saul Rappaport	Caltech, 2000	Professor, astronomy and earth and planetary science, UC Berkeley. Director of Berkeley's Center for Integrative Planetary Science. Interests are theoretical astrophysics, planet formation, protoplanetary disks.	1995 BS: "Ionization Nebulae Surrounding Supersoft X-Ray Sources"
1996	Matias Zaldarriaga	Graduate student	Edmund Bertschinger and Uros Seljak	MIT, 1998, Physics	7/09-, Professor of astrophysics, Institute for Advanced Study, Princeton. 2003-9, professor of astronomy and physics, Harvard University. 2006, MacArthur Fellow. 2005, Gribov Medal, European Physical Society. 2003, Warner Prize (AAS).	1998 PhD: "Fluctuations in the Cosmic Microwave Background"
1997	James Kiger	SB 1997 Physics	Saul Rappaport	M.D., U. Pittsburgh Medical School 2006	Assistant professor of pediatrics at the Medical Univ. of South Carolina, subspecializing in neonatology. Position is clinical and research. The 40-bed neonatal intensive care unit takes infants from all over South Carolina. Research areas of particular interest are cardiopulmonary bypass, epigenomics, and hypothermia therapy following neurological injury. "Certainly it is a big change from physics, but there is plenty of opportunity to use my background to some degree, and caring for critically ill infants is incredibly rewarding."	1997 BS: "Theoretical Studies of Nuclear Burning on White Dwarfs"
1998	Edmund Mun Choong Kong	SM 1998 Aeronautics and Astronomy	David Miller	MIT, 2002	Chief systems engineer in the Orbital Sciences Corporation Global Communication Group.	1999 SM: "Optimal Trajectories and Orbit Design for Separated Spacecraft Interferometry"
1999	Eric Ford	SB 1999 Physics and Mathematics	Frederic Rasio	Princeton, 2003, Astrophysical Sciences	Professor of astronomy and astrophysics at Penn State at the Institute for CyberScience. Also engaged with PSU's Center for Exoplanets and Habitable Worlds, the Center for Astrostatistics, and the Penn State Astrobiology Research Center. Member of the Kepler Science Team.	1999 SB: "The Dynamics of Extrasolar Planets"

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2000	Jessica (Lackey) Lu	SB 2000 Physics	Victoria Kaspi	UCLA, 2008	Assistant astronomer at the Institute for Astronomy, Univ. of Hawaii. Research interests: High-mass star and cluster formation, galactic centers, stellar dynamics, high-angular resolution imaging and spectroscopy, adaptive optics, astrometry, infrared astronomy. Primary contributor to AstroBetter.com.	2000 SB: "Monitoring Anomalous X-Ray Pulsars with RXTE"
2001	Adam Reynolds	SB 2001 Physics	Edmund Bertschinger and Ali Nayeri		Technical Instructor, MIT Physics, until 2006. Currently associate chaplain at MIT, Vineyard Christian Fellowship.	2001 SB: "Gravitomagnetism and Extra Dimensions"
2002	Joshua Michael Lapan	SB 2002 Physics	Alan Guth	Harvard, 2008	Finished second postdoc in string theory at McGill University. Began at Renaissance Technology in August 2014.	2002 SB: "Defining Probabilities on Infinite Sets of Universes Arising in Inflationary Theory"
2003	Stefan Ballmer	2nd year graduate student, Physics	Eric Katsavounidis	MIT, 2006	Assistant professor of physics, Syracuse University. Research interests: development of next generation gravitational-wave detector technology; commissioning and characterization of Advanced LIGO; searches for gravitational waves from stochastic background.	2006 PhD: "LIGO Interferometer Operating at Design Sensitivity with Application to Gravitational Radiometry"
2004	Laura Ann Lopez	SB 2004 Physics	Claude Canizares	University of California, Santa Cruz, 2011	Hubble Fellow at the Institute for Theory and Computation at the Harvard-Smithsonian Center for Astrophysics. Research focus: massive stars and how they interact with the interstellar medium (ISM), with an ultimate goal of using observations to test and improve theoretical models of star and galaxy formation, stellar feedback, and supernova explosions. In fall 2015, will become assistant professor of astronomy at the Ohio State University.	2004 SB: "A Continuum Model of the High-Resolution X-Ray Spectra from the Relativistic Jets in SS 433"
2005	Svetlin Tassev	SB 2005 Physics	Edmund Bertschinger	Harvard, 2011	Postdoc at Princeton Univ., working with David Spergel and Matias Zaldarriaga on large-scale structure formation.	2005 SB: "Quantum Field Theory of Scalar Cosmological Perturbations"
2006	Emily Levesque	SB 2006 Physics	Scott Hughes and Adam Burgasser	University of Hawaii, 2010	Hubble Postdoctoral Fellow at the University of Colorado at Boulder. Researching the use of massive stars as cosmological tools, focusing on their post-main sequence evolution, their explosions as supernovae and gamma-ray bursts, and their role in stellar populations and galaxy modeling. Coordinates an undergraduate career mentoring program at CU called Beyond Boulder, offering weekly sessions that discuss career opportunities for students with degrees in physics and astronomy.	2006 SB: "The Effective Temperatures and Physical Properties of Red Supergiants: The Effects of Metallicity"
2007	Tucker Jones	SB 2007 Physics	Saul Rappaport	Caltech, 2012	At UC Santa Barbara as a postdoctoral fellow in the Southern California Center for Galaxy Evolution. Research is on the formation and evolution of galaxies at high redshift.	2007 SB: "An Upper Limit on the Abundance of Small Trans-Neptunian Objects from X-Ray Occultations"
2008	J. (James) Colin Hill	SB 2008 Physics	Ken Rines and Claude Canizares	Princeton, 2014	Junior Fellow, Simons Society of Fellows, Columbia University. Research interests: Theoretical cosmology and data analysis: CMB; large-scale structure; galaxy clusters; Sunyaev-Zel'dovich effect; non-Gaussianity; cosmological tests of fundamental physics.	2008 SB: "Cosmological Constraints for the Virial Mass Function of Nearby Galaxy Groups and Clusters"

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2009	Josiah Schwab	SB 2009 Physics	Saul Rappaport	UC Berkeley, expected 2016	Graduate student in the Physics and Astronomy Departments at UC Berkeley, working with Eliot Quataert. Interested in compact-object mergers and various astrophysical transients. NSF Graduate Fellowship (2010–15). Member of the Berkeley Compass Project, a group working to improve undergraduate physics education.	2009 SB: “New Results from Gravitational Lensing by Galaxies”
2010	William Throwe	SB 2010 Physics	Scott Hughes		Graduate student at Cornell, working with the Teukolsky group on improved initial conditions for black hole simulations is going well. One project is to simulate strong-field gravitational lensing.	2010 SB: “High-Precision Calculation of Generic Extreme mass Ratio Inspirals”
2011	Ashley Perko	SB 2011 Physics and Math	Max Tegmark		Physics PhD student at Stanford, advised by Leonardo Senatore. Stanford Graduate Fellowship recipient. Current research interests in early universe cosmology and inflation.	2011 SB: “The Omniscope: Mapping the Universe in 3D with Neutral Hydrogen”
2012	Renyu Hu	3rd year graduate student, Earth, Atmospheric, & Planetary Sciences	advisor: Sara Seager; nominator: Kerri Cahoy	MIT, 2013	Hubble Fellow at JPL, Caltech, working with Wesley Traub. Research focuses: studying the fundamental processes that determine the chemical composition and evolution of atmospheres on planets in the Solar System and exoplanets.	2009 SM: “Evolution of MHD Voids, Formation of Magnetars, and Observations of Geo-Magnetospheric Reconnections,” Tsinghua University, Beijing
2013	Edward A. Mazenc	BS 2013 Physics	advisor: David Kaiser; also Alan Guth	Stanford	2014–15 visitor at Stanford Institute for Theoretical Physics, High Energy Theory Group. (http://web.stanford.edu/group/sitp/SITP-members(2014-2015).htm)	2013 BS: “Multifield Inflation and Differential Geometry”
2014	Katharine (Katelin) Schutz	BS 2014 Physics	advisor: David Kaiser	PhD expected 2019, UC Berkeley	Hertz Fellowship. Third-year student at UC Berkeley in the Berkeley Center for Theoretical Physics, studying theoretical cosmology.	2014 BS: Theoretical cosmology
2015	Weishuang (Linda) Xu	BS 2015 Physics	advisor: Anna Frebel	PhD candidate at Harvard	Second-year student at Harvard University, Center for Fundamental Laws of Nature.	2015 BS: “Chemical and Kinematic Properties of Bright Metal Poor Stars”
2016	Anirudh Prabhu	BS 2016 Physics	advisor: David Kaiser	PhD candidate at Stanford	NSF Graduate Research Fellowship. First-year student at Stanford University.	2016 BS: “Preheating in Multifield Inflation”