

## FY 2019 Research Opportunities in High Energy Physics - List of Awards

Selectee	Institution	Title
Erdelyi, Bela	Northern Illinois University, DeKalb, IL 60115-2864	Nonlinear Dynamics of Integrable Hamiltonian Systems for Novel Particle Accelerators in High Energy Physics
Link, Jonathan	Virginia Polytechnic Institute and State University, Blacksburg, VA 24060-3580	Studies of Fundamental Neutrino Properties at the Intensity Frontier
Rosenzweig, James	Regents of the University of California, Los Angeles, Los Angeles, CA 90095-1406	Ultra-high Gradient, Cryogenic RF Acceleration for Linear Collider Applications
Cochran, James	Iowa State University of Science and Technology, Ames, IA 50011-2207	Investigations in Experimental High Energy Physics
Martinec, Emil	The University of Chicago, Chicago, IL 60637-5418	Theoretical High Energy Physics Research at the University of Chicago - 2019-2022
Asaadi, Jonathan	The University of Texas at Arlington, Arlington, TX 76019-0145	QPix Technology: Research and Development towards kiloTon scale pixelated LArTPC
Jastram, Andrew	Texas A&M University, College Station, TX 77845-4321	Active Inner Veto for Improved SuperCDMS SNOLAB Dark Matter Search Sensitivity
Sobel, Henry	Regents of the University of California, Irvine, Irvine, CA 92697-7600	A Research Program in Elementary Particle Physics
Hadley, Nick	University of Maryland, College Park, MD 20742-5141	HIGH ENERGY ACCELERATOR and COSMIC RAY USER GROUP at the UNIVERSITY of MARYLAND
White, Christopher	Illinois Institute of Technology, Chicago, IL 60616-3717	Experimental Neutrino Physics Research at Illinois Tech
Larbalestier, David	Florida State University, Tallahassee, FL 32306-4166	The Underlying Science of Round Wire Bi-2212
Milchberg, Howard	University of Maryland, College Park, MD 20742-5141	Application of Axially Modulated Plasma Structures to Advanced High Energy Accelerators
Mattingly, David	University of New Hampshire, Durham, NH 03824-3585	Theoretical High Energy Physics at the University of New Hampshire
Frisch, Henry	The University of Chicago, Chicago, IL 60637-5418	Precision Time-of-Flight at the Fermilab Testbeam Facility
Grandi, Luca	The University of Chicago, Chicago, IL 60637-5418	Development of Nanocomposite Coatings for Future Large-Scale Time Projection Chambers
Litvinenko, Vladimir	The Research Foundation for SUNY Stony Brook University, Stony Brook, NY 11794-3362	CO <sub>2</sub> -laser-driven GeV wakefield accelerators
Arnold, Peter	The Rector and Visitors of the University of Virginia, Charlottesville, VA 22904-4195	The University of Virginia, Theoretical High Energy Physics
Spentzouris, Linda	Illinois Institute of Technology, Chicago, IL 60616-3717	Multidisciplinary development of SRF and photocathode technology
Thomas, Scott	Rutgers, The State University of New Jersey, Piscataway, NJ 08854-3925	Research in Theoretical High Energy Physics
Roberts, Bradley	Trustees of Boston University, Boston, MA 02215-1300	Precision Muon Physics at Fermilab
Velasco, Mayda	Northwestern University, Evanston, IL 60201-3149	Research in the Energy, Cosmic and Intensity Frontiers and Theoretical Physics at Northwestern University
Wurtele, Jonathan	The Regents of University of California, Berkeley, CA 94704-5940	Theory and Modeling of Optical Stochastic Cooling for the IOTA Experiment

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Schmaltz, Martin	Trustees of Boston University, Boston , MA 02215-1300	Topics in Theoretical Particle Physics
Szydakis, Matthew	The Research Foundation of SUNY, University at Albany, Albany, NY 12222-0100	Simulations, Analysis, and Radon Mitigation for the LZ Dark Matter Search
Soderberg, Mitchell	Syracuse University, Syracuse, NY 13244-1200	Development of Improved Noble Liquid Purity Measurements
Nachtman, Jane	University of Iowa, Iowa City, IA 52242-1320	High Energy Experimental and Theoretical Physics Research at the University of Iowa
Sciolla, Gabriella	Brandeis University, Waltham, MA 02453-2728	Particle Physics and Cosmology Research at Brandeis University
Bean, Rachel	Cornell University, Ithaca, NY 14850-2820	Maximizing LSST and DESI's impact on dark sector and inflationary physics.
Akchurin, Nural	Texas Tech University, Lubbock, TX 79409-1035	Experimental Particle Physics Research at Texas Tech University
Stroynowski, Ryszard	Southern Methodist University, Dallas, TX 75275-0240	Research in High Energy Physics at Southern Methodist University
Sumption, Michael	The Ohio State University, Columbus, OH 43210-1016	Conductors, Cables, and Magnets for High Energy Physics: Transport, Magnetization, Strain, and Modelling
Andonian, Gerard	Regents of the University of California, Los Angeles, Los Angeles, CA 90095-1406	A High Transformer Ratio Plasma Wakefield Accelerator Experiment at the AWA
Butler, John	Trustees of Boston University, Boston , MA 02215-1300	LHC Research at Boston University
Rusack, Roger	Regents of the University of Minnesota, Minneapolis, MN 55455-2070	Very High Precision Clock Distribution Demonstrator System
Bechtol, Keith	Board of Regents of the University of Wisconsin System, operating as University of Wisconsin-Madison, Madison, WI 53715-1218	Science Validation for Dark Energy Research with Optical Imaging Surveys
Brod, Joachim	University of Cincinnati, Cincinnati, OH 45221-0222	The Origin of Matter
Caldwell, Robert	Trustees of Dartmouth College, Hanover, NH 03755-1421	Dartmouth Theory Group: The Origin and Nature of the Universe
Antonsen, Thomas	University of Maryland, College Park, MD 20742-5141	Fundamental Beam Physics for Advanced Accelerators
Dawson, Kyle	University of Utah, Salt Lake City, UT 84102-0000	Exploring Dark Energy at All Scales with eBOSS and DESI
Furic, Ivan	University of Florida, Gainesville, FL 32611-5500	High Energy Experimental Research Effort: Intensity Frontier Physics with Liquid Argon Time Projection Chambers
Walter, Christopher	Duke University, Durham, NC 27705-4010	Research in High Energy Physics at Duke University
Moustakas, John	Siena College, Loudonville, NY 12211-1462	Improving Cosmological Precision by Mitigating DESI Redshift Survey Systematics
Adams, Todd	Florida State University, Tallahassee, FL 32306-4166	Florida State University High Energy Physics
Mahn, Kendall	Michigan State University, East Lansing, MI 48824-2601	Improved neutrino oscillation measurements using multiple neutrino energy spectra

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Gurevich, Alexander	Old Dominion University Research Foundation, Norfolk, VA 23508-2561	Investigation of new superconducting materials for the next generation high-gradient RF cavities for particle accelerators
Hohlmann, Marcus	Florida Institute of Technology, Melbourne, FL 32901-6975	Experimental High Energy Physics Research
Berz, Martin	Michigan State University, East Lansing, MI 48824-2601	Advanced Nonlinear Particle Beam Dynamics: Muon g-2, EDM Searches, and Workforce Training
Dunne, Gerald	University of Connecticut, Storrs, CT 06269-1133	Theoretical High Energy and Particle Physics
Roiban, Radu	The Pennsylvania State University, University Park, PA 16802-7000	Theoretical Studies in Elementary Particle Physics
Poland, David	Yale University, New Haven, CT 06520-8327	New Approaches to Strong Dynamics
Newman, Jeffrey	University of Pittsburgh, Pittsburgh, PA 15213-2303	Enabling Dark Energy Measurements from DESI and LSST
Landsberg, Greg	Brown University, Providence, RI 02912-2912	Fundamental Problems in High-Energy Physics, Astroparticle Physics, and Cosmology
Joshi, Chan	Regents of the University of California, Los Angeles, Los Angeles, CA 90095-1406	Experimental, theoretical and simulations studies of the role of plasmas in future accelerators.
Catterall, Simon	Syracuse University, Syracuse, NY 13244-1200	Theoretical Particle Physics and Cosmology
Sikivie, Pierre	University of Florida, Gainesville, FL 32611-5500	Theoretical inquiries beyond the standard model and experimental search for axion dark matter
Lunin, Oleg	The Research Foundation of SUNY, University at Albany, Albany, NY 12222-0100	Integrability and Symmetries of Classical Geometries
Spanier, Stefan	The University of Tennessee, Knoxville, TN 37996-1529	Elementary Particle Interactions with CMS at LHC
McFarland, Kevin	University of Rochester, Rochester, NY 14627-0140	Experimental Studies of Elementary Particles and Fields
Greensite, Jeff	San Francisco State University, San Francisco, CA 94132-1722	Research in Theoretical High Energy Physics
Temkin, Richard	Massachusetts Institute of Technology, Cambridge, MA 02139-4307	High Frequency High Gradient Accelerator Research
Guo, Wei	Florida State University, Tallahassee, FL 32306-4166	Liquid Helium Fluid Dynamics Studies
Shafi, Qaisar	University Of Delaware, Newark, DE 19716-0099	Particle Theory, Particle Astrophysics and Cosmology
Giedt, Joel	Rensselaer Polytechnic Institute, Troy, NY 12180-3522	Lattice Field Theory Beyond the Standard Model
Johnson, Clifford	UNIVERSITY OF SOUTHERN CALIFORNIA, Los Angeles, CA 90089-0701	Gravity, Geometry and Field Theory in Fundamental Physics
Seiberg, Nathan	Institute for Advanced Study, Princeton, NJ 08540-8540	Problems in Theoretical Physics
Seidel, Sally	University of New Mexico, Albuquerque, NM 87131-0001	Collider Physics Instrumentation