

WINNERS OF THE FY 2017 COMPETITION UNDER THE DEFENSE UNIVERSITY RESEARCH INSTRUMENTATION PROGRAM -- Page 1 of 6

Principal Investigator	Institution	State	Brief Description of Instrumentation or Research it Supports	Awarding Office
Abdelaziz, Sherif	SUNY, Stony Brook	NY	Thermo-hydro-mechanical behavior of unsaturated earth surface porous materials	ARO
Adams, Walter	William Marsh Rice University	TX	Unique nanoparticulate ion implanter	AFOSR
Agarwal, Arvind	Florida International University	FL	Low-load mechanical testing platform with a non-contact extensometer	AFOSR
Aggarwal, Ishwar	University of North Carolina, Charlotte	NC	Extended infrared mueller matrix measurement capability	ONR
Alexander, Dennis	University of Nebraska	NE	Surface chemistry during femtosecond laser surface processing	ONR
Allison, Thomas	SUNY, Stony Brook	NY	Flat-field extreme ultraviolet spectrograph	AFOSR
Appelgate, Bruce	University of California, San Diego	CA	Shallow-water multibeam swath mapping	ONR
Arinzeh, Treena	New Jersey Institute of Technology	NJ	Piezoelectric biomaterial characterization	ONR
Ballard, Megan	University of Texas, Austin	TX	Acoustic coring system	ONR
Bandosz, Teresa	CUNY, City College of New York	NY	Advanced recognition of photocatalytic activity	ARO
Barbara, Paola	Georgetown University	DC	Closed-cycle superconducting magnet system for terahertz spectroscopy	ONR
Barrett, Christopher	Virginia Polytechnic Institute and State University	VA	Network-centric computing for global system science	AFOSR
Baumgartner, Mark	Woods Hole Oceanographic Institution	MA	Surveys with autonomous ocean gliders	ONR
Berenson, Dmitry	University of Michigan	MI	Robot upper body for humanoid manipulation research	ONR
Boechler, Nicholas	University of Washington	WA	Ultrafast laser-induced shock visualization and ballistic impact system	ARO
Boltasseva, Alexandra	Purdue University	IN	Optical characterization for novel on-chip nanoscale light sources	ONR
Boudouris, Bryan	Purdue University	IN	Variable temperature thermoelectric probe station with magnetic field manipulation	AFOSR
Bowersox, Rodney	Texas A&M University	TX	Instrumented hypervelocity research tunnel nozzle	AFOSR
Buehler, Markus	Massachusetts Institute of Technology	MA	Materials with innovative functions and energetic efficiency	ONR
Cao, Hui	Yale University	CT	Programmable pulse shaping, stretching and amplification	ONR
Carlsson, John	University of Southern California	CA	Geographic resource allocation solutions	ONR
Cattafesta, Louis	Florida State University	FL	Volumetric particle image accelerometer	AFOSR
Ceccio, Steven	University of Michigan	MI	Time-resolved tomographic particle imaging velocimetry system	ONR
Chalivendra, Vijaya	University of Massachusetts, North Dartmouth	MA	State-of-the-art high-speed video camera	ARO
Chandrasekar, Srinivasan	Purdue University	IN	Large-area optical surface profilometry	ARO
Chang, Yuchou	University of Houston, Downtown	TX	Electroencephalogram in human-robot collaboration and combat team	ARO
Chang, Zenghu	University of Central Florida	FL	High power phase-stabilized few-cycle mid-infrared laser	AFOSR
Chen, Hong	Washington University in St. Louis	MO	Ultrasound for measuring mechanical properties of deep brain tissue	ONR
Chen, Yingying	Stevens Institute of Technology	NJ	Dynamic tactical mobile ad hoc network research	ARO
Chun, Francis	US Air Force Academy	CO	One-meter-class satellite-tracking telescope	AFOSR
Coale, Kenneth	San Jose State University	CA	Calibration chamber for sampling atmospheric refractive environment	ONR

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Collins, Peter	Iowa State University of Science and Technology	IA	Analytical serial sectioning with orientation microscopy capabilities	ONR
Cong, Weilong	Texas Technical University	TX	Nano-mechanical testing system	ARO
Cooke, Nancy	Arizona State University	AZ	Biometric measurement for human learning and performance processes	ONR
Coronges, Kathryn	Northeastern University	MA	Human-based modeling with large-scale high performance computing	ONR
Cortes, Pedro	Youngstown State University	OH	Benchtop scanning electron microscope/transmission electron microscope unit	AFOSR
Côté, Robin	University of Connecticut	CT	Computer cluster for ultracold chemistry and molcular ions	ARO
Dean, Jay	University of South Florida	FL	Animal physiology studies in adverse atmospheres	ONR
DeMarco, Brian	University of Illinois, Urbana-Champaign	IL	Laser systems for measurements of local relaxation	ARO
DeMille, David	Yale University	CT	Bose-Einstein condensate of polar molecules	ARO
Demirel, Melik	Pennsylvania State University	PA	High-throughput screening of evolutionary biological materials	ARO
Dickey, Elizabeth	North Carolina State University	NC	Field-induced chemical and microstructure evolution of dielectric materials	AFOSR
Dietrich, Carl	Virginia Polytechnic Institute and State University	VA	Model city for unmanned aerial systems and wireless research	ARO
Dongare, Avinash	University of Connecticut	CT	Big data analysis of microstructural evolution under dynamic loading conditions	ARO
Egerstedt, Magnus	Georgia Institute of Technology	GA	Testbed for heterogeneous, autonomous teams	ONR
Eilers, Hergen	Washington State University	WA	Real-time experimental characterization/investigation of hot-spots	AFOSR
El Nagggar , Mohamed	University of Southern California	CA	Fast scanning atomic force microscopy system	AFOSR
Englund, Dirk	Massachusetts Institute of Technology	MA	Ultrapure reactive ion etching for scalable nanofabrication	ARO
Fallen, Christopher	University of Alaska, Fairbanks	AK	Ionosonde system for multipoint measurements of the Arctic space environment	AFOSR
Faraon, Andrei	California Institute of Technology	CA	Quantum light matter interfaces based on rare-earth-doped materials	ONR
Fasel, Hermann	University of Arizona	AZ	In-flight diagnostics of unsteady wing boundary layer	AFOSR
Feng, Milton	University of Illinois, Urbana-Champaign	IL	120 gigabit/second error-free data transmission test	ARO
Finkelstein, Gleb	Duke University	NC	Cryogen-free dilution refrigerator system	ARO
Foster, Mark	University of Akron	OH	Atmospheric pressure plasma jet system	ARO
Gavrilets, Sergey	University of Tennessee	TN	High-performance computing	ARO
Gedney, Stephen	University of Colorado, Denver	CO	Multi-physical properties of magnetic materials	ONR
Gianneschi, Nathan	University of California, San Diego	CA	Liquid-cell transmission electron microscopy holder with controlled liquid heating	AFOSR
Go, David	University of Notre Dame	IN	Fourier transform infrared spectroscopy system and tunable laser system	AFOSR / ARO
Gomes, Carla	Cornell University	NY	Computational-and-data-intensive methods	ARO
Grauman, Kristen	University of Texas, Austin	TX	Graphics processing unit cluster	AFOSR
Green, Matthew	Arizona State University	AZ	Material discovery through electrochemical and porosity analysis	ARO
Griffith, William	University of Texas, Arlington	TX	High speed image system and specimen heater	ARO

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Hafezi, Mohammad	University of Maryland	MD	Cryogenic system for quantum optical measurement	AFOSR
Hanson, Ronald	Leland Stanford Junior University	CA	Ultraviolet laser system	AFOSR
Hasty, Jeff	University of California, San Diego	CA	Robotic laboratory workstation	ARO
Holbrook, Christopher	University of California, Los Angeles	CA	Configurable anthropomorphic robot	AFOSR
Holland, Gregory	San Diego State University	CA	T150 mechanical testing system	AFOSR
Hovikimyan, Naira	University of Illinois, Urbana-Champaign	IL	Scaled-down airspace physical simulator	AFOSR
Hsia, Ru-Ching	University of Maryland, Baltimore	MD	Automated electron microscopy specimen processor	ARO
Inman, Daniel	University of Michigan	MI	Avian inspired morphing manufacturing and measurement system	AFOSR
Johnson, Mark	Yale University	CT	Integration of high performance mass spectrometry and cryogenic ion spectroscopy	AFOSR
Juliano, Thomas	University of Notre Dame	IN	Hypersonic high-Reynolds-number quiet wind tunnel: air compressor and heater	AFOSR
Kanter, Gregory	Northwestern University	IL	Superconducting single photon counter	ARO
Kasevich, Mark	Leland Stanford Junior University	CA	Laser system for precision atom interferometry	ONR
Kennedy, Scott	University of Washington	WA	Massively parallel sequencing platform	ARO
Kisailus, David	University of California, Riverside	CA	High strain rate impact tester and correlative Raman microscope	AFOSR / ARO
Kumar, R. Vijay	University of Pennsylvania	PA	Swarms of aerial robots	ONR
Kuperman, William	University of California, San Diego	CA	Holographic array for structural acoustics	ONR
Lai, Keji	University of Texas, Austin	TX	Cryogenic microwave impedance microscope with pulsed laser stimulation	ARO
Lavery, Andone	Woods Hole Oceanographic Institution	MA	Systems for underwater remote sensing of littoral environments	ONR
Lee, Craig	University of Washington	WA	Next-generation research seaglidars	ONR
Lee, Tae-Kyu	Portland State University	OR	Advanced cold metal transfer gas metal arc welding robotic additive manufacturing system	AFOSR
Lee, Tonghun	University of Illinois, Urbana-Champaign	IL	Multi-axial high-speed three-dimensional imaging system	AFOSR
Lemmer, Kristina	Western Michigan University	MI	Laser and imaging diagnostic equipment for plasma and combustion analysis	AFOSR
Levitas, Valery	Iowa State University of Science and Technology	IA	High pressure and large shear deformation system for materials research	ARO
Li, Lu	University of Michigan	MI	Magnetometry detecting spin textures in topological materials	ONR
Li, Yifei	University of Massachusetts, Dartmouth	MA	Gigahertz and terahertz photonics testbed	AFOSR
Lian, Tianquan	Emory University	GA	High power regenerative amplifier system	AFOSR
Liu, Yao	University of South Florida	FL	Towards wireless physical layer security	ARO
Lu, Yongfeng	University of Nebraska	NE	High-power laser system for the study of beta-phase diffusion	ONR
Manocha, Dinesh	University of North Carolina, Chapel Hill	NC	Multi-human multi-robot interactions	ARO
Maria, Jon-Paul	North Carolina State University	NC	Advanced multilayer physical vapor deposition	ARO
Matzger, Adam	University of Michigan	MI	Multipurpose X-ray diffractometer	ARO

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McKinlay, James	Indiana University, Bloomington	IN	Connecting phenotype to genotype in evolved prokaryotic populations	ARO
McNeil, Craig	University of Washington	WA	Exploration and research of estuaries using adaptive sampling	ONR
Mi, Zetian	University of Michigan	MI	Optical characterization of aluminum gallium nitride nanowire heterostructures	ARO
Michaels, Alan	Virginia Polytechnic Institute and State University	VA	Waveform validation testbed	ONR
Miles, Richard	Princeton University	NJ	Frequency tunable femtosecond laser system	ONR
Mishra, Rajiv	University of North Texas	TX	Multi-physics materials processing equipment	ARO
Mishra, Umesh	University of California, Santa Barbara	CA	Characterization and nonlinear modeling of devices and circuits	ONR
Mohseni, Hooman	Northwestern University	IL	Direct deposition and characterization of nano-optoelectronic devices	ARO
Morris, Scott	University of Notre Dame	IN	Turbomachinery materials research and testing	ONR
Noneaker, Daniel	Clemson University	SC	Research in mobile wireless communication networks	ARO
Ogilvie, Jennifer	University of Michigan	MI	Broadband adjustable repetition rate laser system	AFOSR
Ortalan, Volkan	Purdue University	IN	Multimodal ultrafast investigation of high-energetic materials	ONR
Paglione, Johnpierre	University of Maryland	MD	Materials genome approach to the search for superconductivity	AFOSR
Parsons, Gregory	North Carolina State University	NC	Surface adsorption and spectroscopic analysis instrument suite	ARO
Pinkel, Robert	University of California, San Diego	CA	Hydrographic doppler sonar system	ONR
Prasad, Paras	SUNY, Buffalo	NY	High-density patterning of upconversion nanoparticles and peptide-based nanobioassemblies	AFOSR
Prather, Dennis	University of Delaware	DE	Photonic-to-radio frequency instrumentation systems	AFOSR
Preble, Stefan	Rochester Institute of Technology	NY	Equipment for silicon photonics research	AFOSR
Putterman, Seth	University of California, Los Angeles	CA	Ultrashort-pulse laser and ultrafast-gated intensified charge-coupled device	AFOSR
Ramachandran, Siddharth	Boston University	MA	High power lasers via intermodal nonlinear optics in fiber	AFOSR
Ray, Asok	Pennsylvania State University	PA	Dynamic data-driven feature extraction and information fusion	AFOSR
Ren, Yuhang	CUNY, Hunter College	NY	Ultraviolet to mid-infrared nonlinear spectroscopy	AFOSR
Revzen, Shai	University of Michigan	MI	Measuring fast-legged robots as oscillators	ARO
Reynolds, John	Georgia Institute of Technology	GA	Hyperspectral imaging platform	ONR
Richardson, Martin	University of Central Florida	FL	Long-wavelength infra-red picosecond high intensity carbon dioxide laser	ARO
Rose, Garrett	University of Tennessee	TN	Pulse-based characterization system	AFOSR
Rouse, Elliott	Northwestern University	IL	Robotic instrument to detect likelihood for leg injury	ONR
Ruan, Xiulin	Purdue University	IN	Fourier transform infrared spectrometer with integrating sphere	AFOSR
Safavi-Naeini, Amir	Leland Stanford Junior University	CA	Development of hybrid microwave-optical quantum networks	AFOSR
Santos, Veronica	University of California, Los Angeles	CA	Field deployable, bimanual mobile manipulator system	ONR
Schamiloglu, Edl	University of New Mexico	NM	Electromagnetic interference exposure to microcontrollers	ONR

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Schmit, Christopher	South Dakota State University	SD	Metals and volatile organic compounds in chemical reactions and mechanisms	ARO
Schneider, Steven	Purdue University	IN	Improving optical access for the Mach-6 Quiet-Flow Ludwig Tube	AFOSR
Sertel, Kubilay	Ohio State University	OH	Terahertz frequency extenders	ONR
Shanechi, Maryam	University of Southern California	CA	High-density electroencephalogram recording system	ARO
Sokolov, Alexei	Texas A&M University	TX	Ultrafast spectroscopy for stand-off detection of explosive devices	ONR
Sonkusale, Sameer	Tufts University	MA	Three-dimensional printing of lab on pill microsystems	ONR
St Laurent, Louis	Woods Hole Oceanographic Institution	MA	Autonomy based turbulence glider systems	ONR
Stern, Chantal	Boston University	MA	Cognitive neuroscience analysis and modeling	ONR
Storey, Robson	University of Southern Mississippi	MS	Reaction monitoring system and inert atmosphere glove box	ARO
Sun, Nian	Northeastern University	MA	Dual-chamber sputter deposition and magnetic annealing system	AFOSR
Sutton, Jeffrey	Ohio State University	OH	High-resolution laser diagnostics at extreme operating conditions	AFOSR
Sycara, Katia	Carnegie Mellon University	PA	Improving human interaction with robot teams	AFOSR
Tao, Meng	Arizona State University	AZ	Upgrading a sulfide-dedicated ultra-high vacuum chemical vapor deposition system	AFOSR
Tassioulas, Leandros	Yale University	CT	Hybrid wireless networking testbed	ONR
Tehraniipoor, Mark	University of Florida	FL	Security validation of integrated circuits	ARO
Thomas, Vandervelde	Tufts University	MA	Ultraviolet to deep infrared material characterization	ONR
Thynell, Stefan	Pennsylvania State University	PA	Thermogravimetric decomposition studies of energetic materials	ARO
Tsiotras, Panagiotis	Georgia Institute of Technology	GA	Testbed for large-scale multi-vehicle autonomous research	ONR
Tytell, Eric	Tufts University	MA	Quantifying three-dimensional deformations in flexible organisms	ARO
Voth, Greg	Wesleyan University	CT	High resolution three-dimensional imaging of non-spherical sedimenting particles	ARO
Vuletic, Vlado	Massachusetts Institute of Technology	MA	Laser system for entangled-state generation in large atomic ensembles	AFOSR
Walker, Robert	Montana State University	MT	High temperature materials characterization in electrochemical applications	ONR
Walter, Matthew	Toyota Technological Institute, Chicago	IL	Mobile manipulation platform	ARO
Wang, Evelyn	Massachusetts Institute of Technology	MA	High spatial resolution thermal characterization of microelectronic devices	ONR
Wang, Jun	University of Central Florida	FL	Next-generation all flash big data parallel processing engine	ARO
Wang, Kang	University of California, Los Angeles	CA	Femtosecond amplifying and harmonic generation system	ARO
Wiese, Eva	George Mason University	VA	Neurophysiological correlates of long-term human-robot interaction	AFOSR
Win, Moe	Massachusetts Institute of Technology	MA	Efficient and accurate network navigation	ONR
Winey, Karen	University of Pennsylvania	PA	Hybrid photon counting detector system	ARO
Yardim, Caglar	Ohio State University	OH	Lower atmosphere propagation measurement system	ONR
Ye, Peide	Purdue University	IN	Environment-controlled atomic layer deposition system	ONR

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York, Robert	University of California, Santa Barbara	CA	Temperature-dependent impedance measurement of broadband devices and circuits	ARO
Zelevinsky, Tanya	Columbia University	NY	Laser cooling, trapping, and dissociation of barium-hydrogen molecules	AFOSR
Zhang, Zheng Jenny	Northwestern University	IL	Translational research in regenerative and transplant medicine	ONR
Zhou, Min	Georgia Institute of Technology	GA	Integrated experiments and computational design of heterogeneous energetic materials	AFOSR
Zhu, Lin	Clemson University	SC	Wafer bonding for hybrid photonic integration research	ARO