American Physical Society awards fellowships to Los Alamos scientists

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LOS ALAMOS, NEW MEXICO, December 18, 2012—Ten scientists at Los Alamos National Laboratory are being inducted into the ranks of fellowship in the American Physical Society (APS) for 2012.

The criterion for election as an APS Fellow is exceptional contributions to the physics enterprise; such as performing outstanding physics research, important applications of physics, leadership in or service to physics, or significant contributions to physics education. Fellowship is a distinct honor signifying recognition by professional peers.
APS represents more than 50,000 members, including physicists in academia, national laboratories and industry in the United States and throughout the world.

“In our fields, the respect of one’s peers is a most valuable reward,” said Los Alamos Director Charlie McMillan. “I congratulate this year’s inductees. They again show the depth of talent here at the Laboratory and we’re proud to call them colleagues.”

Los Alamos National Laboratory staff members achieving APS Fellowship for 2012 are:

- William Anderson, Weapons Experiments division’s Shock and Detonation Physics group, for significant contributions to the field of dynamic material properties research, and specifically for achieving a better understanding of the dynamic response of geophysical, planetary, and materials, a field of importance to national security. Nominated by APS Topical Group on Shock Compression of Condensed Matter.

- Jonathan C. Boettger, X Computational Physics division’s Materials and Physical Data group, for diverse contributions of profound impact on modern methods of simulating matter under extreme conditions, especially equations of state and properties of heavy element systems, and for synthesizing the computed results in ways significant to the success of experiments important to national security. Nominated by APS Division of Computational Physics.

- Vincenzo Cirigliano, Theoretical division’s Nuclear and Particle Physics, Astrophysics and Cosmology group, for his foundational theoretical contributions to the interpretation of weak decays of light hadrons and the delineation of broader impacts of electric dipole moment searches, and for his contributions to studies of baryogenesis in the early universe. Nominated by APS Division of Nuclear Physics.

- James P. Colgan, Theoretical division’s Physics and Chemistry of Materials group, for advancing fundamental understanding in the electron-impact ionization, few-photon multiple ionization, and ion-impact ionization of atoms and molecules found in astrophysical and laboratory plasmas. Nominated by APS Division of Atomic, Molecular and Optical Physics.

- Juan C. Fernandez, Physics division’s Plasma Physics group, for outstanding and sustained contributions in laser-plasma interactions, relativistic laser-plasmas, and self-organizing force-free magnetized plasmas, and in their application to fusion research and national security. Nominated by APS Division of Plasma Physics.

- Tom Intrator, Physics division’s Plasma Physics group, for novel experimental investigations of interrelated properties of magnetic flux ropes, magnetic reconnection, and turbulence in astrophysical, space, and fusion physics, and for seminal Alfvén-wave current-drive experiments. Nominated by APS Division of Plasma Physics.

- Turab Lookman, Theoretical division’s Physics of Condensed Matter and Complex Systems group, for seminal contributions to the computational physics of materials, complex fluids and nonlinear dynamics. Nominated by Division of Computational Physics.

- Karissa Sanbonmatsu, Theoretical division’s Theoretical Biology and Biophysics group for pioneering computer simulation of molecular machines and biomolecular complexes. Nominated by APS Division of Biological Physics.

- Ivan Vitev, Theoretical division’s Nuclear and Particle Physics, Astrophysics and Cosmology group, for seminal contributions to the understanding of the mechanisms of parton energy loss in strongly-interacting matter and for pioneering theoretical work on jet production in heavy-ion reactions at Brookhaven’s
Relativistic Heavy Ion Collider and CERN’s Large Hadron Collider. Nominated by APS Division of Nuclear Physics.