February 22, 2012
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2012 LANSCE Rosen Scholars

It is our pleasure to announce that the Rosen Scholar award for 2012 will be shared by two outstanding physicists: Dr. Richard F. Casten, currently the D. Allan Bromley Professor of Physics at Yale University, and Dr. Markus Roth, distinguished professor of physics, Institut für Kernphysik, Technische Universität, Darmstadt.


Riichard F. Casten

Professor Casten has many accomplishments and awards including Fellowships in the American Physical Society and the American Association for the Advancement of Science. He has recently been awarded the prestigious Tom W. Bonner prize in Nuclear Physics and received the APS Division of Nuclear Physics Mentoring Award. Professor Caster is very active in the nuclear physics community. He is the present Chair of the FRIB Science Advisory Committee and the past Chair of the Nuclear Science Advisory Committee (NSAC). He has served on all four Long Range Plan Panels since 1989 (1989, 1995, 2001,2007). He was Director of the Wright Nuclear Structure Laboratory form 1995-2008. Dr. Casten will work at LANSCE to develop new research ideas and possible directions for basic research in nuclear structure. Specific areas of interest include exotic nuclei, the mechanisms for the emergence of collectivity in nuclei, the evolution of shell structure, the stability of the heaviest nuclei, recognizing and interpreting the simple and regular patterns that complex nuclei exhibit, order and chaos in nuclei, the relationship between mass (binding) and structure, and new signatures of structure and its changes with N and Z.


Markus Roth

Professor Roth is a distinguished professor of physics in the Institut für Kernphysik, Technische Universität, Darmstadt. His current research is in the area of neutron production following high- power laser interactions with materials. This is an emerging field which brings together the disciplines of nuclear physics, material science, plasma physics and high- power lasers. His research goal is to ultimately produce neutrons over a broad energy range using pulsed lasers. Such a source promises to be very compact and cost effective compared to existing neutron sources. If successful, such laser-based neutron sources could be used in a wide range of applications ranging from basic nuclear physics research to industrial applications. Dr. Roth will work with LANSCE and Physics Division to research novel, compact, high-brightness sources of neutrons using ultra intense lasers.

The Rosen Scholars for CY2012 bring together the disciplines of nuclear physics, accelerator technology, material science, and electrodynamics. This range of activities is the foundation of the LANSCE complex and fits well with the vision of a multi-disciplinary facility developed by Louis Rosen.

-LANSCE User Office