

Abstract Submitted
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Nuclear Physics for National Security DOUGLASS MAYO, Los Alamos National Laboratory — Being a nuclear physicist and working at a national laboratory provides many opportunities to ply one's skills in support of national security and the benefit of all mankind. Over the last 40 years, Los Alamos National Laboratory has been pioneering the field of Domestic and International Safeguards through the research and development of instrumentation and systems used to monitor nuclear materials and nuclear facilities. With a projected increase in the use of nuclear energy, effective systems must be designed to reduce the possibility that nuclear materials may be diverted for used in weapons. The recent focus has been the many applications of radiation detection used for safeguarding nuclear material and to support Homeland Security. There is a critical need for trained nuclear scientists who can understand and overcome measurement complexities, combinations of multiple sensor inputs, data reduction, and automated analysis for these applications. This talk will focus on the opportunities and experiences afforded physicists in the support of national security, beyond the weapons program and travel to interesting locales.

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