

Speaker: Chris Morris (LANL)

Title: Charge-particle radiography

The United States stopped nuclear testing in 1992, and since then it has become increasingly important to develop predictive models for the behavior of materials driven by high explosives. The primary experimental tools to observe that dynamic behavior have been based on x-radiography, the imaging technique used during the earliest days of the Manhattan Project. Over the last decade, however, a new imaging technique has been developed that uses high-energy protons, rather than x-rays, to radiograph materials during dynamic experiments. Charged particle radiography is being used for applications ranging from homeland security to weapons research. These applications will be discussed.