

# Toward an Inertial Fusion Energy Future: Challenges and Opportunities in Science & Technology

*Friday, 22 September 2023 10:00 (40 minutes)*

The repeated achievement of fusion ignition on the National Ignition Facility (NIF) at Lawrence Livermore National Laboratory in the U.S. has demonstrated more energy generated out of the plasma than was delivered by the lasers, thus establishing the basic scientific feasibility of harnessing fusion in the laboratory as an energy source. Fusion energy may be the ultimate clean and nearly limitless form of power, offering energy and climate security. In this talk, we will discuss recent developments in the field, as well as the many challenges and opportunities in the road ahead to realizing Inertial Fusion Energy, including in high power lasers, target fabrication and delivery, blankets and fuel cycles, new materials, computation, and systems integration.

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