



# New video highlights turbulence research essential to Lab mission

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Nobel Prize-winning physicist Richard Feynman called turbulence “the most important unsolved problem of classical physics.” A new [science video](#) highlights some of the research that Lab scientists, engineers and their collaborators are conducting in the field of turbulence in extreme environments.

The video is the first of three videos on turbulence research at the Lab and the first in a new video series highlighting the essential contributions of science and engineering to the Laboratory’s mission.

Turbulence represents a key source of uncertainty as the Laboratory works to fulfill its national security mission to ensure the safety, reliability and performance of the U.S. nuclear weapons stockpile.

Los Alamos researchers are using experiments and computer modeling to enhance the Laboratory’s understanding of turbulence and the ability to predict turbulence and mixing in complex flows, at all scales, from the very small to the astronomical.

This first video focuses on a range of turbulence research at the Laboratory:

- Experiments conducted at the Los Alamos Turbulence Lab to study the complexities of mixing
- High-resolution simulations performed for turbulent flows relevant to Inertial Confinement Fusion and stockpile stewardship applications
- Studies of turbulence under extreme pressures and temperatures at the National Ignition Facility

Future videos will focus on Los Alamos turbulence research in other areas, including complex natural and engineered systems. You can see current science videos on a new external [Lab Science Videos](#) page.

[Watch the “Turbulence in Extreme Environments” video.](#)

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