Contribution ID: **487** Contribution code: **FRYD03** Type: **Invited Oral Presentation**

Ignition Achieved: Next Steps in the Path Toward an Inertial Fusion Energy Future

Friday 15 August 2025 12:00 (30 minutes)

The achievement of ignition on the National Ignition Facility in 2022 demonstrated the fundamental feasibility of controlled thermonuclear fusion in the laboratory for energy gain, and was the first major hurdle in efficiently harvesting fusion energy through inertial fusion energy (IFE). Excitement has been growing worldwide, with notable activity in the public and private sectors. To make IFE commercially viable, however, there are still significant scientific, engineering, workforce, and economic hurdles. This talk will review the advancements that made the ignition breakthrough possible, provide an overview of the international IFE landscape, and describe the remaining gaps and challenges that must be solved to realize IFE laser inertial fusion as a path for clean energy and energy security.

Please consider my poster for contributed oral presentation

No

Would you like to submit this poster in student poster session on Sunday (August 10th)

No

Footnotes

Funding Agency

I have read and accept the Privacy Policy Statement

Yes

Author: MA, Tammy (Lawrence Livermore National Laboratory)

Presenter: MA, Tammy (Lawrence Livermore National Laboratory)

Session Classification: FRYD: Friday Plenary

Track Classification: MC0 - Plenary Speakers