

PHYSIKALISCHES KOLLOQUIUM

Wintersemester 2025/2026

Das Kolloquium findet (soweit nicht anders angegeben) **jeweils montags um 14:15 Uhr im Röntgen-Hörsaal** des Physikalischen Instituts, Hubland Campus Süd, Universität Würzburg **und online via Zoom** statt.

Zugangsdaten siehe <https://www.physik.uni-wuerzburg.de/aktuelles/veranstaltungen-aus-der-physik/physikalisches-kolloquium/>

20.10.2025

Prof. Dr. Markus Roth
Technische Universität Darmstadt, Fachbereich Physik



Laser fusion as a promising pathway to fusion energy

Abstract

With the recent demonstration of fusion ignition and burn and the first energy gain from controlled fusion reactions, the laser-based fusion approach has become a promising concept for fusion energy. While not supported in Germany until a few years ago, Germany has a huge potential in taking the lead on laser-fusion research, based on its excellent science and technology in optics and lasers.

Focused Energy is a US/German Startup company, spin-off the Technische Universität Darmstadt that has gathered the world experts in laser fusion in the last two years. I will review the recent results at the Lawrence Livermore National Laboratory National Ignition Facility and sketch a pathway from this groundbreaking result to a first fusion reactor prototype.

Für die Dozentinnen bzw. Dozenten der Fakultät

Prof. Dr. Palfy-Buß, Prof. Dr. Klembt, Dr. Hammer, Hr. Baumbach, Fr. Schleicher