

# Physics Colloquium Mainz

**January 09, 2024 at 16 c.t.**

Lecture room KPH,  
Johann-Joachim-Becher-Weg 45, JGU

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 of the TU 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.

Laser Fusion As A Promising Pathway To  
Fusion Energy

**Prof. Dr. Markus Roth**

**TU Darmstadt, Focused Energy GmbH**

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