Contribution ID: **3** Type: **Talk**

Increased R&D preparing for first magnetized targets on NIF in 2020

Wednesday, 29 January 2020 09:25 (25 minutes)

A large design and development project has begun at the Lawrence Livermore National Laboratory with 30 scientists and engineers, towards a goal to field magnetically-assisted ignition targets on the National Ignition Facility using applied B fields up to 30 T for indirectly-driven cryogenic-layered DT capsules soon after 2020. First experiments will be conducted with warm gas-filled capsules planned for fall 2020, to be followed by cryo-DT ice layered capsules when ready after 2020. The 2020 experiments may also include a few polar directly-driven warm gas capsule implosions magnetized with the same NIF pulsed power system. Applied B-field diffusion through a high Z metal hohlraum requires a higher resistance material than gold, and we are investigating promising Au-Ta alloys.

Primary author: Dr LOGAN, B. Grant (Consultant to LLNL-NIF)

Co-author: Dr MOODY, John (LLNL-NIF)

Presenter: Dr LOGAN, B. Grant (Consultant to LLNL-NIF)

Session Classification: Fusion Studies I