

Boulder Fluid and Thermal Sciences Seminar Series



Tuesday, September 1, 2015

3:30pm-4:30pm (refreshments at 3:15pm)

Bechtel Collaboratory in the Discovery Learning Center (DLC)

University of Colorado, Boulder

Overview of NREL's transportation and fuels related research activities

Matthew Thornton, *National Renewable Energy Laboratory*

The Center for Transportation and Hydrogen Systems at the National Renewable Energy Laboratory (NREL) is comprised of six research groups focusing on energy storage, advanced vehicle systems, hydrogen analysis, market deployment, simulation, testing, integration, and fuels performance. NREL applies a technology-neutral approach across these six areas to identify multiple pathways to sustainable and versatile low carbon transportation solutions. This talk will briefly touch on research activities in each of these technical areas and then provide a deeper dive into fuels performance research looking at biomass derived “drop in” hydrocarbon fuels and emissions and performance issues related to high octane fuels.

Biography:

Dr. Thornton is a Principal Engineer and Group Manager in NREL's Transportation and Hydrogen Systems Center. He is involved in testing and analysis research programs that assess the fuel economy, greenhouse gas, performance and emissions impacts of advanced fuels and powertrains for light and heavy-duty vehicles. Dr. Thornton's current research is looking at the impact of biofuels and advanced combustion regimes on particle number and concentration emissions.

