



# EVENT-AT-A-GLANCE CO-OPTIMIZATION OF FUELS AND ENGINES

October 9-10, 2018



October 9  
**TUESDAY**

**8:15 a.m. | Welcome Remarks and Keynote Presentation**

Wisdom

Robert Wagner, Oak Ridge National Laboratory; John Farrell, National Renewable Energy Laboratory

**8:30 a.m. | Keynote Presentation: An Overview of the U.S. DOE Co-Optimization of Fuel & Engine Initiative**

Wisdom

John Farrell, National Renewable Energy Laboratory

**9:15 a.m. | Keynote Presentation: Chemistry Matters: Advanced Biofuels for Internal Combustion Engines**

Wisdom

Heinz Pitsch, RWTH Aachen Univ.

**10-10:30 a.m. | Networking Break** - Garden Gallery

**10:30-Noon | Technical Session**

Wisdom

10:30 a.m. *Future Fuels in Support of a Reduced Internal Combustion Engine CO<sub>2</sub> Footprint*, Michael Potter, General Motors Global R & D  
11 a.m. *Fuel Considerations for Advanced Internal Combustion Engines*, David J. Cleary, Aramco Services Co.  
11:30 a.m. *Heavy Duty Vehicle Efficiency Opportunities through the Co-Optimization of Fuels and Engine Technologies*, Jason Miwa, Southwest Research Institute

**Noon-1 p.m. | Networking Lunch** - Garden Gallery

**1 p.m. | Technical Session**

Wisdom

1 p.m. *Co-Optima Initiative's Approach to Multimode Combustion*, Jim Szybist, Oak Ridge National Laboratory  
1:30 p.m. *Φ-Sensitivity and ITHR – Key Fuel Properties for Advanced Compression Ignition Engines*, John Dec, Sandia National Laboratories  
2 p.m. *Impacts of Fuel Physical and Chemical Properties and Implications for Co-optimization of Fuels and Conventional Compression-Ignition Engines*, David A. Rothamer, Univ. of Wisconsin

**2:30-3 p.m. | Networking Break** Garden Gallery

**3 p.m. | Technical Session**

Wisdom

3 p.m. *Fuel Property Effects and Bioblendstock Selection for Spark-Ignition, Multimode, and Mixing Controlled Compression-Ignition Combustion*, Robert L. McCormick, National Renewable Energy Laboratory  
3:30 p.m. *High-fidelity simulations for Co-optimization of Engines and Fuels*, Sibendu Som, Argonne National Laboratory  
4 p.m. *Effects of Fuel Chemistry on Emissions and Emissions Control*, Brian West, Oak Ridge National Laboratory

**4:30-5:30 p.m. | Networking Reception** - Garden Gallery

October 10  
**WEDNESDAY**

**8:15 a.m. | Welcome and Recap of Day 1**

Wisdom

Robert Wagner, Oak Ridge National Laboratory; John Farrell, National Renewable Energy Lab.

**8:30 a.m. | Keynote Presentation: From Alternatives to Alternatives – A paradox**

Wisdom

Derek Regal, Marathon (Andeavor)

**9:15 a.m. | Keynote Presentation : From Diesel to Octane; Opportunities and Challenges in Introducing New Fuels**

Wisdom

Coleman Jones, General Motors

**10-10:30 a.m. | Networking Break** - Garden Gallery

**10:30-Noon | Technical Session**

Wisdom

10:30 a.m. *The Use of HCCI Combustion in a CFR Engine to Understand Fuel Behavior*, Bengt Johansson, King Abdullah University of Science & Technology  
11 a.m. *Fuel Property and Modification for Partially Premixed Combustion (PPC)*, Mingfa Yao, Tianjin University  
11:30 a.m. *Electrofuels in advanced combustion concepts*, Sam Shamun, Lund University

**Noon-1 p.m. | Networking Lunch** - Garden Gallery

**1 p.m. | Technical Session**

Wisdom

1 p.m. *Fuel Requirements and Selection for Compression Ignition Engines*, Shi-Jin Shuai, Tsinghua University  
1:30 p.m. *Impingement, Adhesion, and Vaporization on Cylinder Liners with Post Fuel Injection*, Gen Shibata, Hokkaido University  
2 p.m. *Panel Discussion with Select Speakers*

**REGISTRATION HOURS**

Monday 3-5 p.m.

Tuesday 7 a.m.-5 p.m.

Wednesday 7:30 a.m.-Noon