Wednesday, October 13, 2021 - Day 1

9:30 AM - 9:40 AM
Will Northrop, ICE Division Chair - Welcome (Live)
Executive Rep TBD (Live)

9:40 AM - 10:25 AM
Keynote 1 (Live)
Kelly Sersad, Conference Co-Chair - Moderator (Live)
Dr. James P. Szybist, Propulsion Science Section at Oak Ridge National Laboratory
Presentation Title: "Perspective on Engines in a Decarbonized Transportation Sector"
Q&A

10:25 AM - 10:30 AM
Break

10:30 AM - 11:00 AM
Session 02-03 - Large Bare Engines I
Chair: Chris Storm

ICEF2021-67402
Analysis of Combined Heat and Power Hybrid Systems for Unconventional Driveline Operations
Author: Diego Granata Ferrer

ICEF2021-67511
A Fundamental Thermodynamic Investigation of Compression Ratio Effects in Relation to Diesel Engine Size
Author: Kevin Burnett

ICEF2021-67577
Experiment and Modeling of Thermal Ratcheting Deformation for Cylinder Head Sample
Author: Huading Zhang

11:00 AM - 11:30 AM
Session 02-04 - Large Bare Engines II
Chair: Haiwen Ge

ICEF2021-67400
Primary & Secondary Reference Fuel Effects as a Function of Compression Ratio in a CI Diesel Engine
Author: Jim Dorman

ICEF2021-67497
A Numerical and Experimental Study of Salt Precursor and Primary Particle Size of N-Butylbenzene in Laminar Flame
Author: Zhou Song

ICEF2021-67395
An Active Machine Learning Algorithm (Activo) for Accelerating Simulation-Driven Engine Design Optimization
Author: Opeloua Onyea

11:30 AM - 12:00 PM
Session 06-01 - Ignition Modeling
Chair: Angi Zhang

ICEF2021-67398
High-Fidelity Energy Deposition Ignition Model Coupled With Flame Propagation Models at Engine-like Flow Conditions
Author: Samual Kaimour

ICEF2021-67348
A Numerical Study on the Effects of Egr Dilution in a Pre-Chamber Ignition Engine
Author: Zhenrui Gu

ICEF2021-67381
Efficient Optimization of Fuel Formulation Using Artificial Neural Networks and Linear/Nonlinear Equation Solvers
Author: Travis Kessler

12:00 PM - 12:30 PM
Session 06-02 - Machine Learning
Chair: Pinaki Pal

ICEF2021-67396
Data-Driven Approaches to Learn MyChem Models
Author: Wei Ji

ICEF2021-67486
An Active Machine Learning Algorithm (Activo) for Accelerating Simulation-Driven Engine Design Optimization
Author: Mohammed Alkhalidi

ICEF2021-67377
Modeling of Pre-Spark Heat Release in a Boosted Disi Engine
Author: Mengde Gao

12:30 PM - 1:00 PM
Lunch Break

1:00 PM - 1:30 PM
Session 06-03 - Ignition Modeling
Chair: Haiwen Ge

ICEF2021-67385
High-Fidelity Energy Deposition Ignition Model Coupled With Flame Propagation Models at Engine-like Flow Conditions
Author: Samual Kaimour

2:00 PM - 2:30 PM
Session 06-06 - Engine In-Cylinder Flow Analysis
Chair: Hans Rohr

ICEF2021-67361
A Numerical Study on the Effects of Egr Dilution in a Pre-Chamber Ignition Engine
Author: Zhenrui Gu

ICEF2021-67401
The Interaction Between the Pilot Diesel and Main NG Injection in an HPDI Engine
Author: Vicky Subramaniam

ICEF2021-67385
Data-Driven Approaches to Learn MyChem Models
Author: Wei Ji

ICEF2021-67449
Efficient Optimization of Fuel Formulation Using Adaptive Learning and Artificial Intelligence!
Author: Juliane Mueller

ICEF2021-67488
An Active Machine Learning Algorithm (Activo) for Accelerating Simulation-Driven Engine Design Optimization
Author: Opeloua Onyea

1:30 PM - 2:00 PM
Session 06-05 Advanced Combustion Engine Modeling
Chair: Hao Chen

ICEF2021-67386
A Numerical Study on the Effects of Egr Dilution in a Pre-Chamber Ignition Engine
Author: Nihal Nowak

ICEF2021-67394
Efficient Optimization of Fuel Formulation Using Adaptive Learning and Artificial Intelligence!
Author: Juliane Mueller

ICEF2021-67449
Efficient Optimization of Fuel Formulation Using Adaptive Learning and Artificial Intelligence!
Author: Juliane Mueller

ICEF2021-67488
An Active Machine Learning Algorithm (Activo) for Accelerating Simulation-Driven Engine Design Optimization
Author: Opeloua Onyea

2:00 PM - 2:30 PM
Session 06-07 Engine In-Cylinder Flow Analysis
Chair: Hans Rohr

ICEF2021-67385
High-Fidelity Energy Deposition Ignition Model Coupled With Flame Propagation Models at Engine-like Flow Conditions
Author: Samual Kaimour

ICEF2021-67401
The Interaction Between the Pilot Diesel and Main NG Injection in an HPDI Engine
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ICEF2021-67449
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Author: Juliane Mueller

ICEF2021-67488
An Active Machine Learning Algorithm (Activo) for Accelerating Simulation-Driven Engine Design Optimization
Author: Opeloua Onyea

2:30 PM - 3:00 PM
Break

3:00 PM - 3:30 PM
Session 06-08 Ignition Modeling
Chair: Haiwen Ge

ICEF2021-67385
High-Fidelity Energy Deposition Ignition Model Coupled With Flame Propagation Models at Engine-like Flow Conditions
Author: Samual Kaimour

ICEF2021-67401
The Interaction Between the Pilot Diesel and Main NG Injection in an HPDI Engine
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ICEF2021-67361
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ICEF2021-67449
Efficient Optimization of Fuel Formulation Using Adaptive Learning and Artificial Intelligence!
Author: Juliane Mueller

ICEF2021-67488
An Active Machine Learning Algorithm (Activo) for Accelerating Simulation-Driven Engine Design Optimization
Author: Opeloua Onyea

3:30 PM - 4:00 PM
Session 06-09 Advanced Combustion Engine Modeling
Chair: Hao Chen

ICEF2021-67386
A Numerical Study on the Effects of Egr Dilution in a Pre-Chamber Ignition Engine
Author: Nihal Nowak

ICEF2021-67394
Efficient Optimization of Fuel Formulation Using Adaptive Learning and Artificial Intelligence!
Author: Juliane Mueller

ICEF2021-67449
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ICEF2021-67488
An Active Machine Learning Algorithm (Activo) for Accelerating Simulation-Driven Engine Design Optimization
Author: Opeloua Onyea

3:30 PM - 4:00 PM
Panel Session 2
Moderators: Silbenda Sam, Tom Launer
"Towards Decarbonizing Heavy-Duty Freight Transportation"

3:30 PM - 4:00 PM
Panel Session 3
Moderators: Silbenda Sam, Tom Launer
"Towards Decarbonizing Heavy-Duty Freight Transportation"

3:45 PM - 4:15 PM
Session 03-01 - Combustion Diagnostics
Chair: Jiang Zhou

ICEF2021-67375
Optimization of a Marine Medium-Speed Engine With Multi-injector System
by 3D Predictive Simulation
Author: Longqi

ICEF2021-67325
Analysis of Premixed Laminar Combustion of Methane With Noble Gases as a Working Fluid
Author: Mammalaghir Baghrazadeh

4:15 PM - 4:45 PM
Session 03-02 - Combustion Diagnostics
Chair: Jiang Zhou

ICEF2021-67375
Optimization of a Marine Medium-Speed Engine With Multi-injector System
by 3D Predictive Simulation
Author: Longqi

ICEF2021-67325
Analysis of Premixed Laminar Combustion of Methane With Noble Gases as a Working Fluid
Author: Mammalaghir Baghrazadeh

4:45 PM - 5:15 PM
Session 03-03 - Combustion Diagnostics
Chair: Jiang Zhou

ICEF2021-67375
Optimization of a Marine Medium-Speed Engine With Multi-injector System
by 3D Predictive Simulation
Author: Longqi

ICEF2021-67325
Analysis of Premixed Laminar Combustion of Methane With Noble Gases as a Working Fluid
Author: Mammalaghir Baghrazadeh

4:45 PM - 5:15 PM
Panel Session 3 (Live)
Moderators: Silbenda Sam, Tom Launer
"Towards Decarbonizing Heavy-Duty Freight Transportation"

5:15 PM - 5:45 PM
Break
### Panel Session 2

"Pathways to Achieve Ultra-Low NOx Emissions"
- Moderator: Ameya Joshi, Corning
- Chris Sharp, Swiffl
- Steve Ciatti, PACCAR Technical Center
- Naying Chen, Oak Ridge National Laboratory
- Bill Robertson, California Air Resources Board
- Ying Tuan, Cummins

<table>
<thead>
<tr>
<th>Room #1</th>
<th>Room #2</th>
<th>Room #3</th>
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<tbody>
<tr>
<td>3:15PM</td>
<td>4:45PM</td>
<td>Room 1 - Industry</td>
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<tr>
<td>4:45PM</td>
<td>4:50PM</td>
<td>Room 2 - Academia</td>
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<tr>
<td>Room #1: Novel Combustion and Emission Control Concepts</td>
<td>Room #2: Session 03-03 Dual Fuel Combustion</td>
<td>Room #3: Session 06-03 Reduced Order Modeling</td>
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<tr>
<td>Chair: Hongsheng Guo</td>
<td>Chair: Marcis Jansons, Co-chairs: Giacomo Belgiorno, Deivanayagam Harharan</td>
<td>Chair: Yu Zhang, Co-Chair: Emma Zhao</td>
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<tr>
<td>Author: Srinivasa Krishna Addepalli</td>
<td>Author: Lawrence Fromm</td>
<td>Author: Le Zhao</td>
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<tr>
<td>Author: Xueyi Zhang</td>
<td>Author: Xiaoli Zhang</td>
<td>Author: Laurence Fromm</td>
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<td>Author: Toshi Niki</td>
<td>Author: Brady Wilmer</td>
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<td>Room A1 - 15 mins Q&amp;A LIVE</td>
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<td>Room A3 - 15 mins Q&amp;A LIVE</td>
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### Conference Ends

**Friday, October 15, 2021 - Day 3**

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>8:00AM</td>
<td>SmartUQ Workshop</td>
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<tr>
<td>1:30PM</td>
<td>Associates Meeting</td>
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<tr>
<td>3:00PM</td>
<td>Technical Committees Meeting</td>
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</tbody>
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