

# IAV SPARK 25

**Call for Papers**  
IAV Symposium on Pre-ignition,  
Auto-ignition, Reactivity, and Knock

## IAV Symposium on Pre-ignition, Auto-ignition, Reactivity, and Knock

IAV is proud to announce IAV SPARK 25 (Symposium on Pre-ignition, Auto-ignition, Reactivity, and Knock), where the internationally renowned conferences, "Ignition Systems for SI Engines" and "Knocking in SI Engines", converge in the USA. We invite you to submit your groundbreaking research and join a community of visionaries shaping the future of these ever evolving technologies.

Spark Ignition (SI) engines have been around for more than a century, and there's still plenty of room for improvement. Power density, ignition, combustion control, preventing uncontrolled combustion, and the adaptation to a variety of renewable fuels are prime for further innovation. At IAV SPARK 25, we offer the opportunity to join us in an inspiring exchange of the latest developments in the field of combustion technology.

Powertrains with an internal combustion engine, primarily hybrids, will continue to be an important pillar in the global automotive realm for decades to come. Optimizing and adapting them to new fuels will continue to be an exciting challenge for developers around the world in, both presently and looking into the future.

This push for progress will drive internal combustion engines to have improved efficiency in conjunction with lower emissions and necessitate the emergence of zero and low carbon fuels.

In this respect, we are looking forward to your presentation proposals on the following topics in particular:

- Ignition, flame kernel growth and combustion of conventional and alternative fuels
- Impact of conventional and alternative fuels on efficiency and pollutant emissions
- Irregular combustion phenomena – analysis, avoidance and methods
- Modern virtual development methods including AI approaches
- Control, regulation and latest function algorithms

## Conference Date and Location

December, 2-3, 2025  
Shinola Hotel, Detroit

[www.iav.com/spark](http://www.iav.com/spark)

Symposium sponsor



## Chairmen

Marc Sens, IAV  
Holger Gentgen, IAV USA

## Scientific Committee

Matthias Braun, Braun Consulting  
Dr. David Cleary, Aramco Americas  
Dr. Tim Frazier, Cummins  
Ryan Heinbuch, General Motors  
Hans Lipp, Tenneco  
Jens Mühlmann, VW de Mexico  
Dr. Yuanjiang Pei, Aramco Americas  
Dr. Riccardo Scarcelli, Argonne National Laboratory  
Dr. Kelly Senecal, Convergent Science

## Submission of Abstracts

Interested parties are requested to submit the abstract (max. 3,000 characters) with title, authors/co-authors and company address via [www.iav.com/specials/spark](http://www.iav.com/specials/spark)

If you have any queries, please contact  
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## Deadline for Submission of Abstracts

May 31, 2025

## Presentation Language and Duration

Presentation language will be English.  
The duration of the lecture is 20 minutes followed by a discussion.

## CFD Workshop by Convergent Science

½ Day in the morning of December 2, 2025

