

Abstract

Application of CFD Spray Models to Accelerate Industrial Product Design

The industrial sector faces the formidable challenge of swiftly deploying products and services in a fiercely competitive landscape. To expedite product development, computational models have become increasingly indispensable, particularly in driving upfront design. Virtual tools are now being heavily relied upon to shorten product development timelines. The efficacy of these tools hinges upon their accuracy, turnaround time, and widespread deployment through well-vetted workflow practices. This webinar will delve into the application of CFD spray simulations for automotive combustion and electrification applications. The subject matter will elucidate how advanced models are validated and used to propel advanced research and expedite near-term product development within the nuances of an industrial environment. The webinar will feature a multitude of application use cases, showcasing the practical implementation of these cutting-edge techniques.

Speaker Bio



Ronald (Ron) is employed as a Staff Researcher at General Motors Research and Development, Energy and Propulsion Systems Research Lab. He has over 20 years of experience in CFD modeling of thermal applications for internal combustion engines and electric vehicles. Ron's areas of expertise are modeling fuel sprays, in-cylinder air-fuel mixing, and novel cooling system design optimization. In 2014, Ron was recognized nationally with the Black Engineer of the Year Most Promising Scientist Award in Industry. He is also a past recipient of the ILASS W. R. Marshall Award. Currently, Ron serves as a member of the ASME Internal Combustion Engine (ICE) Division Executive Committee as industry advisor.