

The Meshing, Visualization, and Computational Environments (MVCE) Technical Committee is co-organizing several special/invited sessions that highlight recent advances, emerging challenges, and innovative applications across these research areas. These sessions bring together experts from academia, industry, and national laboratories to foster discussion and collaboration. Below are the descriptions of these sessions.

Advancing the Frontiers of CFD: Celebrating the Legacy of Antony Jameson and Towards CFD 2030 (Joint APA/MVCE/FD/CFD2030)

This invited session celebrates the enduring contributions of Antony Jameson, whose pioneering work has profoundly influenced modern Computational Fluid Dynamics (CFD). Building on the foundations, the session brings together leading invited researchers from academia, industry, and government laboratories to discuss his contribution and impact, emerging challenges and opportunities shaping the next generation of CFD. Topics include high-order discretization methods, adjoint-based design optimization, and advances in solver and scalable algorithms for exascale computing. The session aims to provide a vibrant forum for reflecting on the field's evolution while charting future directions for CFD research and applications. Please direct any questions to Prof. Siva Nadarajah (siva.nadarajah@mcgill.ca).

A Tribute to Philip Roe: Advances in Numerical Methods for CFD in Aerospace Applications (Joint MVCE/APA/FD/CFD2030)

This invited session honors the legacies of Philip Roe, one of the most influential figures in the history of CFD, whose ideas continue to shape numerical methods and design approaches used in aerospace. In his honor, this session brings together researchers from around the world working on both fundamental and applied aspects of Computational Fluid Dynamics (CFD) to provide an open forum for discussing the future directions of CFD. This session highlights recent advances in algorithmic development for active flux, high-order and adaptive methods, and hypersonics. Please direct any questions to Prof. Devina Sanjaya (devina.p.sanjaya@gmail.com).