



4th AIAA CFD High-Lift Prediction Workshop

Sponsored by the Applied Aerodynamics Technical Committee

Co-located with the
3rd Geometry and Mesh Generation Workshop

June 5-6, 2021

at the AIAA Aviation and Aeronautics Forum and Exposition
Washington, DC, USA

HLPW Objectives:

- Assess the numerical prediction capability (meshing, numerics, turbulence modeling, high-performance computing requirements, etc.) of current- and next-generation CFD technology/codes for swept, medium-to-high-aspect ratio wings for landing/take-off (high-lift) configurations.
- Develop practical modeling guidelines for CFD prediction of high-lift flow fields.
- Determine the elements of high-lift flow physics that are critical for modeling to enable the development of more accurate prediction methods and tools.
- Enhance CFD prediction capability for practical high-lift aerodynamic design and optimization.

General Information:

- Participation in the high-lift prediction studies is not required to attend the workshop; everyone is welcome.
- Open, unbiased forums are included in the workshop to discuss the results and promote cross-pollination of best practices.
- The HLPW-4 test cases will utilize the High Lift Common Research Model (CRM-HL) landing configuration, and will focus on CFD prediction for flap deflection effectiveness and maximum lift ($C_{L,max}$). Data obtained from testing of the NASA 10% semi-span model in the QinetiQ 5-metre wind tunnel will be used for comparison.

HLPW-4

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For more information, visit the HiLiftPW website:

<http://hiliftpw.larc.nasa.gov> or send email to: hiliftpw@gmail.com