

AIAA Applied Aerodynamics 12th Hover Invited Sessions: SciTech 2025

January 6-10, 2025, Orlando, Florida



The AIAA Applied Aerodynamics Rotorcraft Simulation Discussion Group will host multiple special sessions at SciTech 2025. These are a continuation of the previous SciTech special hover sessions that were held from 2014 to 2024. Organizers seek high quality papers addressing the challenges of hover simulations including accurate and rapid rotor performance prediction, aeroelastic windup, boundary layer transition, flow separation prediction, wake capture, and aerodynamic interactional effects. Focus areas for 2025 include:

- Comparative results to the NASA/U.S. Army Hover Validation and Acoustic Baseline (HVAB) rotor test;
- Application of methods to real-world hovering helicopters;
- General calculations for eVTOL or UAV rotorcraft in hovering and transitioning flight;
- Fundamentals in hover simulations.

Visit the AIAA Rotorcraft Simulation Discussion Group website (<https://www.aiaa-hpw.org>) for a link to the HVAB experimental test data, details of rotor geometry, properties, run-conditions, guidelines, and expected results. Suggestions for hover download calculations and links to past papers are also available on the site.

Call for AIAA SciTech 2025 papers is available at: <https://www.aiaa.org/SciTech/call-for-content>.

Participants will need to upload abstracts by May 23, 2024. Abstracts should clearly detail the focus area of your hover investigations. When submitting through

AIAA's conference website for SciTech-2025, please choose: Topic -> "Applied Aerodynamics", Sub-Topic -> "Special Session: Rotor-in-Hover Simulation Sessions". This will ensure that your submission is tagged correctly.

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