

Welcome to the 8th annual

OPENVSP WORKSHOP 2020

Fully virtual and streaming to [OpenVSP Videos](#)

September 15-17, 2020

Welcome to the Virtual Workshop!



Our annual workshop is fully virtual this year to adhere to social distancing practices and eliminate the need for travel. This also means...

No fees!

No registration!

Free and open distribution to the public!

Feel free to share the links to the workshop page or sessions on social media, within working groups, among friends, or to anyone you think would benefit from these talks!

Reminders

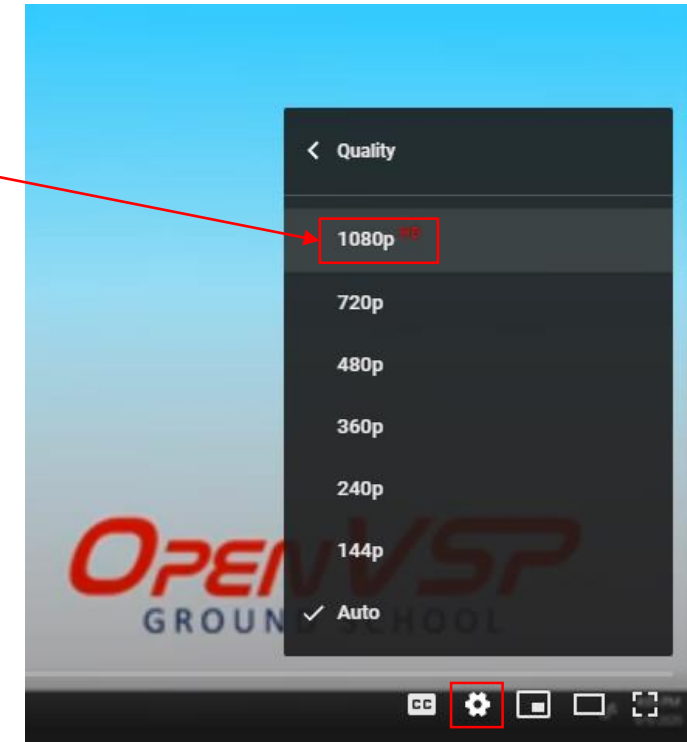


Viewers:

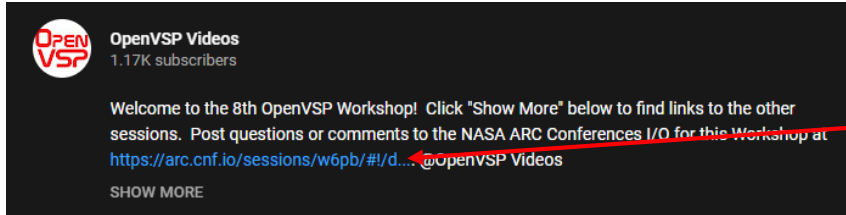
- Make sure to set your player quality to 1080p!
 - YouTube will not do this automatically.
- You will need to check your quality each time you reopen the links.
- We recommend watching the workshop on a separate screen if you plan on working through tutorials.
- Sessions will be recorded and uploaded for viewing later.

Presenters:

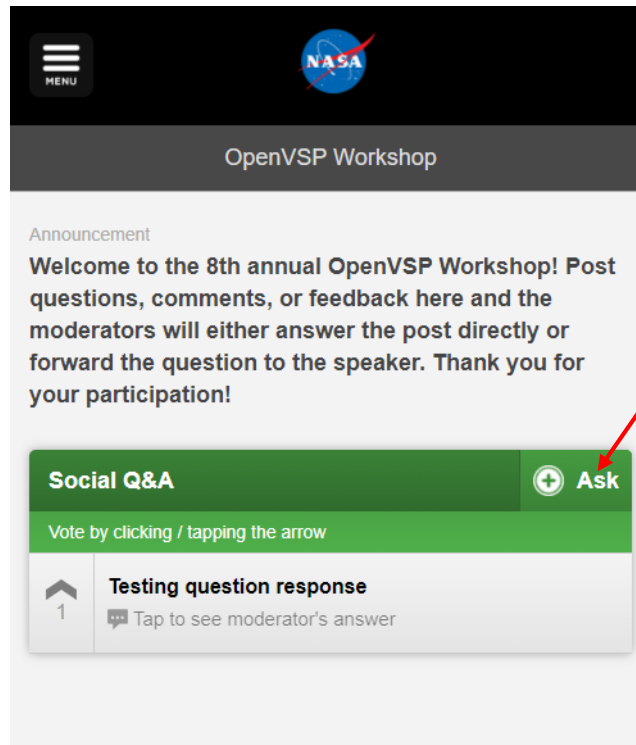
- Close the VSP Live YouTube stream while presenting.
 - Causes audio feedback.
- Maximize your presentations to get the best resolution.
- Share the display closest to a 16:9 aspect ratio if using multiple screens.
- Only Moderators or Presenters should be on the Teams meeting at any time.



Interaction with Speakers



Post questions or comments to the NASA Conferences I/O Service. Links to the Social Q&A are on the main page and below each video player.



Click “+ Ask” to post a comment or question. Moderators will either address these directly or forward popular topics to the speaker.

There is a delay between the Teams meeting and the streamed content. The Q&A feed will be stored for a time so you can go back and review if needed. Any questions not addressed during the speaker’s time can be answered at a later time.

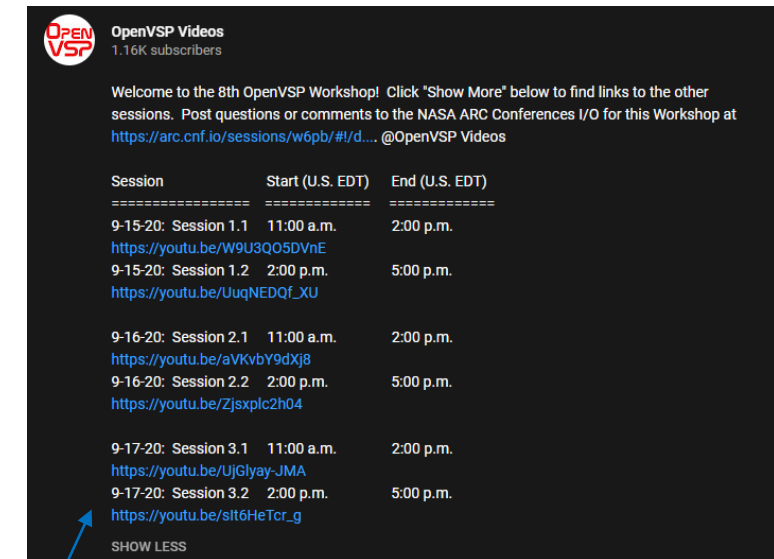
Workshop Session Schedule and Links



Workshop Main Page

<http://openvsp.org/wiki/doku.php?id=workshop2020>

| Session | Start (U.S. Eastern) | End (U.S. Eastern) |
|--|----------------------|--------------------|
| September 15, 2020 Session 1.1 | 11:00 a.m. | 2:00 p.m. |
| September 15, 2020 Session 1.2 | 2:00 p.m. | 5:00 p.m. |
| | | |
| September 16, 2020 Session 2.1 | 11:00 a.m. | 2:00 p.m. |
| September 16, 2020 Session 2.2 | 2:00 p.m. | 5:00 p.m. |
| | | |
| September 17, 2020 Session 3.1 | 11:00 a.m. | 2:00 p.m. |
| September 17, 2020 Session 3.2 | 2:00 p.m. | 5:00 p.m. |



Links to all sessions are included in the YouTube video description for easy access.
Click "Show More" to display the text.

Technical Schedule



| Introduction, Basics, Modeling | | | | Improvements and Analyses | | | Tool Interaction and Developer Sessions | | |
|--------------------------------|--|-----------------------------------|---------------------|---|----------------|---------------------------------------|--|----------------------------------|----------------|
| Start EDT | Tuesday 9/15 Session 1.1 | | | Wednesday 9/16 Session 2.1 | | | Thursday 9/17 Session 3.1 | | |
| 11:00 | Welcome, Workshop Overview, and Introduction to OpenVSP | Brandon Litherland / Rob McDonald | NASA Langley / Uber | VSPAERO Theory, Validation, and Features | Dave Kinney | NASA Ames | Flight-control analysis, gust modeling, and response of UAM vehicles | Imon Chakraborty / Roy Hartfield | FlightStream |
| 11:30 | VSP Ground School Overview, Basic modeling, and Tips & Tricks - Refresher Course | Brandon Litherland | NASA Langley | VSPAERO GUI & Tutorial - Basics | Justin Gravett | ESAero | Demonstration of Autonomous Differential Throttle-based Flight Control for Aircraft with DEP | Garrett Klunk | ESAero |
| 12:00 | | | | | | | | | |
| 12:30 | Attach, symmetry, sets, subsurfaces | Rob McDonald | Uber | VSPAERO Recent Additions -- unsteady, rotating frame, rotating parts, PSU-WOPWOP output, etc. | Dave Kinney | NASA Ames | Building OpenVSP from Source | Justin Gravett | ESAero |
| 13:00 | Git version control of VSP models and libraries | Brandon Litherland | NASA Langley | | | | OpenVSP API/Matlab Integration | Justin Gravett | ESAero |
| 13:30 | Skinning explained | Rob McDonald | Uber | Session 2.2 | | | Session 3.2 | | |
| Session 1.2 | | | | VSPAERO GUI & Tutorial - Advanced | Justin Gravett | ESAero | OpenVSP Structures Modeling | Justin Gravett | ESAero |
| 14:00 | Fit Model | Rob McDonald | Uber | High Fidelity Airliner Modeling for CFD Analysis; Tips, Tricks, and Lessons Learned | Andy Hahn | Aircraft Conceptual Design Consulting | M4 Structures Studio: Overview and Updates | Tyler Winter | M4 Engineering |
| 14:30 | Parameter Linking | Rob McDonald | Uber | | | | | Thomas Nascenzi | M4 Engineering |
| 15:00 | CAD/CFD Interaction and Advanced Modeling Techniques | Brandon Litherland | NASA Langley | ESAero AFRL SBIR | Justin Gravett | ESAero | M4 Structures Studio: UAM Demonstration | Thomas Nascenzi | M4 Engineering |
| 15:30 | Cart 3D Engine Modeling in OpenVSP | Nat Blaesser | NASA Langley | | | | | Joe Robinson | M4 Engineering |
| 16:00 | Design Variables and Variable Presets | Rob McDonald | Uber | | | | | | |
| 16:30 | OpenVSP Parasite drag tool | Nick Brake | ESAero | | | | | | |

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Thank You!

Questions?