AePW-3 Telecon

June 2, 2022

(https://nescacademy.nasa.gov/workshops/AePW3/public)

Agenda: June 2, 2022

- AePW-3 Schedule: IFASD 2022, SciTech 2023
- Next AePW-3 Telecon: **August 4, 2022 (bimonthly schedule)**
- Large Deflection Working Group, Markus Ritter
  - Telecons are held on second Thursday each month, 11am EST
  - Special presentation by Christoph Mertens, TU Delft: Pazy Wing with gust generators
- Flight Test Working Group, Jeff Ouellette
  - Telecons are held on third Thursday each month, 11am EST
- High Speed Working Group, Eric Blades
  - Telecons are held on third Thursday each month, 5pm EST
- High Angle Working Group, Pawel Chwalowski
  - Telecons are held on fourth Thursday each month, 11am EST

Auditorio

AEPW-3
David Schuster
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Integrated aeroelastic measurements of the periodic gust response of a highly flexible wing

MERTENS , C.
TU Delft

073

Post-Flutter Dynamics of the Pazy Wing Geometrically Nonlinear Benchmark Model

RISO, C.
Georgia Tech

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David Schuster
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Uncertainties Quantification in the Flutter Prediction of the Pazy Wing

RIGHI, M.
ZHAW

013

Methodology to assess the effects of geometric nonlinearity on the static aeroelastic behavior of very flexible wings

BUARQUE CORDEIRO DE MELO, I
Instituto Tecnologico de Aeronautica

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CFD simulations of the Pazy Wing in Support of the Third Aeroelastic Prediction Workshop

FEHRS, M.
DLR

AEPW-3
Daniella Raveh
078

Flutter Analysis of the Benchmark Supercritical Wing in the Presence of Shock Buffet

POPLINGHER, L.
Technion

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Flutter Solution of the NASA Benchmark Supercritical Wing using Linear and Non-Linear Methods

PAGLIUCA, G.
BAE - FIlton

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Flutter analyses of the X-56 Unmanned Aerial Vehicle within the AePW-3 Flight Test Working group

TIMMERMANS, H.
NLR

AEPW-3 & ROLL EFFECT.
Daniella Raveh
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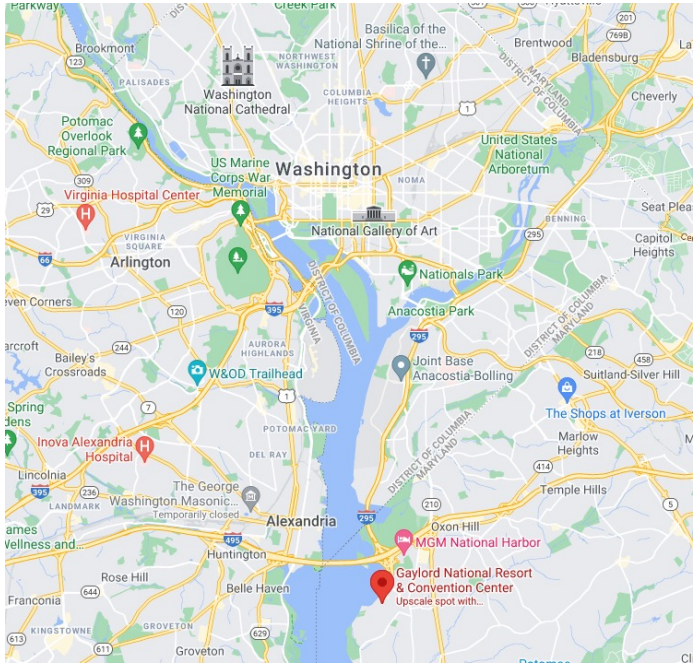
Static aeroelastic transonic rolling capability of a modern flexibility wing

BUENO LUQUE FILHO, G.
Embraer

SciTech 2023: AePW-3 Workshop

AIAA Science and Technology Forum and Exposition (2023 AIAA SciTech Forum)
23–27 January 2023
Gaylord National Harbor
National Harbor, MD



- AePW-3 workshop is planned for January 21-22, 2023, the weekend BEFORE SciTech 2023. AIAA / SDTC approved these dates. This is **233** days from today! More information to come…..
- SciTech 2023 paper is NOT required to participate in the workshop.
- Please generate a list of accepted AePW-3 abstracts/papers for SciTech 2023. Structural Dynamics TC would like to group AePW-3 related papers into AePW sessions.

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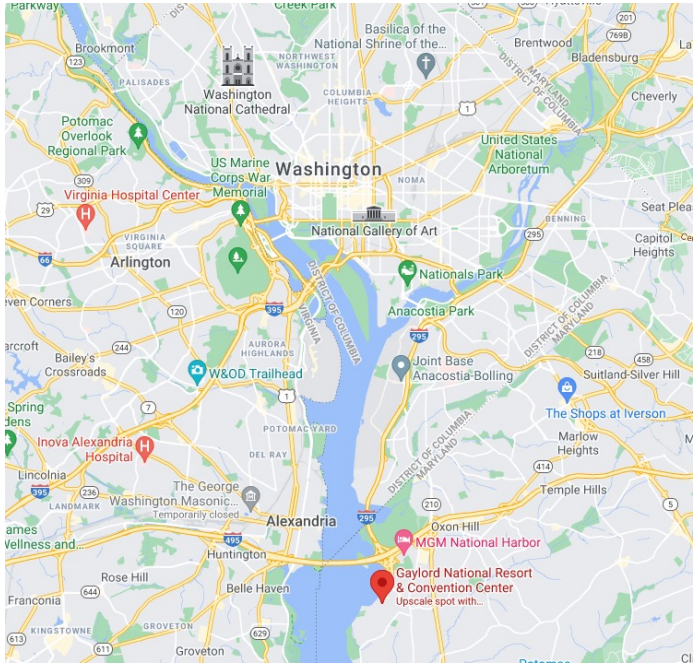

AIAA advertisement statement:

The third Aeroelastic Prediction Workshop (AePW-3) will be held in conjunction with the 2023 AIAA SciTech conference. The workshop is an open and impartial forum meant to assess and evaluate the current state-of-the-art and state-of-the-practice in computational aeroelastic modeling. The workshop is aimed at understanding the effectiveness of current tools towards predicting aeroelastic phenomena critical for aircraft analysis and design, and also identifying computational and experimental areas of research needing further development. In order to better reflect the diverse needs and backgrounds across the aeroelastic community, the workshop has been broken into four working groups: the High-Angle working group (HAWG: focused on transonic buffet and flutter phenomena); the Flight-Test working group (FTWG: focused on flutter mechanisms involving rigid body motions); the Large-Deformation working group (LDWG: focused on slender wings undergoing large nonlinear structural deformations); and the High-Speed working group (HSWG: focused on supersonic flow over flexible panels and plates). Research from each of these working groups will be presented at the workshop, followed by a detailed discussion and interpretation of the results. Re-analysis and future workshop plans will also be discussed. The AePW-3 is sponsored by the AIAA Structural Dynamics Technical Committee.

AIAA Aviation 2022

If you are presenting an AePW related paper at AIAA Aviation 2022, please let me know.

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IFASD 2022

- **Large Deflection Working Group:**
  - Christoph Mertens, Jurij Sodja, Andrea Sciacchitano, and Bas W. van Oudheusden, "INTEGRATED AEROELASTIC MEASUREMENTS OF THE PERIODIC GUST RESPONSE OF A HIGHLY FLEXIBLE WING, TU Delft"
  - Riso, Cesnik (Pazy Wing)
  - Marcello Righi, "Uncertainties Quantification in the Flutter Prediction of the Pazy Wing"
  - Felipe Buarque Cordeiro de Melo (ITA), Flávio Luiz de Silva Bussamra (ITA), Angelo Antonio Verri (Embraer), "Methodology to assess the effects of geometric nonlineratity on the static aeroelastic behavior of very flexible wings"
  - Fehrs, Ritter, Helm, Chwalowski, Stanford, "CFD simulations of the Pazy Wing in Support of the Third Aeroelastic Prediction Workshop"

- **High Angle Working Group:**
  - Magan Singh and Kartik Venkatraman, “Transonic buffet in the Benchmark Supercritical Wing”
  - Lior Poplingher, Daniella Raveh, "Flutter Analysis of the Benchmark Supercritical Wing in the Presence of Shock Buffet”
  - Nicholas Giannelis, Ben Thornber, Gareth Vio, “Comparison of URANS and Hybrid RANS/LES buffet response of the Benchmark Supercritical Wing for the Third Aeroelastic Workshop”
  - Giampaolo Pagliuca, "Flutter Solution of the NASA Benchmark Supercritical Wing using Linear and Non-Linear Methods"

- **Flight Test Working Group:**
  - Ir. H.S. Timmermans, Ir. V.J.E. Aalbers, Flutter analyses of the X-56 Unmanned Aerial Vehicle within the AePW-3 Flight Test Working group