

Welcome to SDSU



SDSU

College of Engineering

Aerospace Engineering

Master of Science program (MSAE)

An Introduction to the AE Faculty



Come join us! The Aerospace Engineering Department at San Diego State University is interested in attracting talented students to our M.S. and Ph.D. degree programs offering specializations in aerodynamics, astrodynamics/ guidance and control, and structural mechanics. Our graduate programs through rigorous and innovative curriculum and high impact research experiences educate students to become the next generation of leaders in Aerospace Engineering.

Our faculty expertise includes aerodynamics, fluid mechanics, propulsion, structural mechanics, aeroelasticity, nondestructive evaluation, aerospace design, guidance and control, astrodynamics, mission analysis and systems Design. The proximity and the strong ties of our faculty to the local aerospace industry provide opportunities for students to interact with industry and to work on real life problems. Our Master's degree course offerings and scheduling is also optimal for working engineers.

Program highlights:

- Well-recognized graduate program
- Distinguished faculty
- State-of-the-art research facilities
- Close connections with aerospace industry and national labs

Funding Agencies: NASA, AFOSR, ONR, US Army, NSF, DoE, FAA and a variety of industrial sponsors.

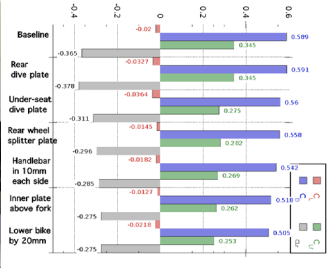
About San Diego: San Diego, located on the Pacific Coast of Southern California, enjoys year-round good weather. The diverse population offers multicultural experiences and a cosmopolitan living experience. San Diego is also home to many engineering and high-tech companies, including Northrop Grumman, General Atomics, Lockheed Martin, Solar Turbines, Boeing, ViaSat, United Technologies Aerospace Systems, US Naval Air Systems Command and over 200 small companies that contribute to unmanned systems and space systems.



Joseph Katz

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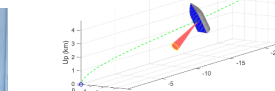
<https://aerospace.sdsu.edu/faculty/josephKatz>



Ping Lu

Professor and Chair
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Aerospace Autonomy
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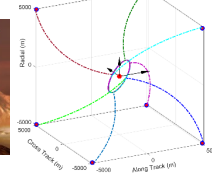
Prof. Lu's research group of undergraduate, MS and PhD students in the Computational Guidance and Control



Advanced planetary powered descent guidance



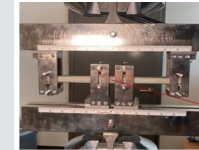
Advanced Entry and Powered Descent Guidance for Human-Scale Mars Mission (Sponsor: NASA)



Satchi Venkataraman

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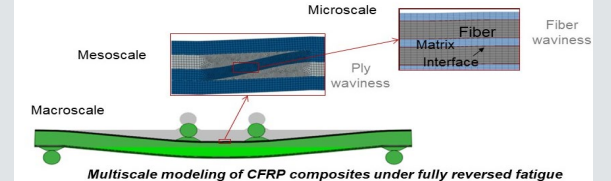
<http://engineering.sdsu.edu/~satchi/>



Failure mechanisms at the ply waviness region

Ply waviness defect before failure

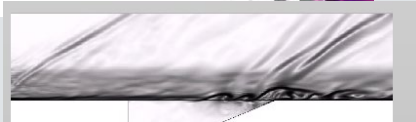
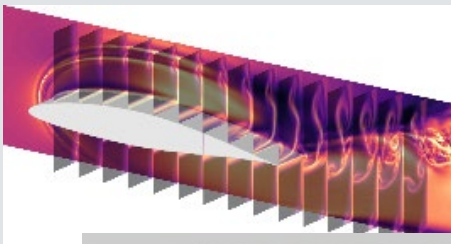
Fully reversed bending fatigue experiments of CFRP composites with defects



Gustaaf (Guus) Jacobs

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<https://newscenter.sdsu.edu/citer/>



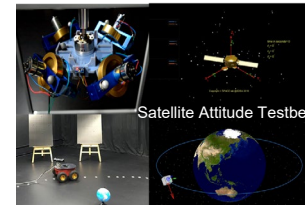
Unsteady Simulation of Flow in Propulsion Systems



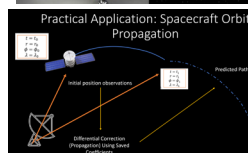
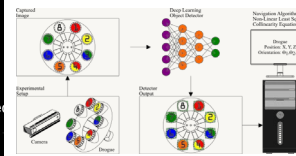
Ahmed Bani-Younes

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Lab webpage: <https://space.sdsu.edu>



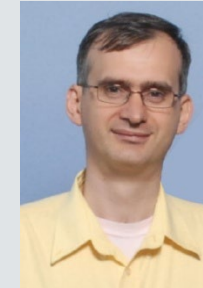
Satellite Attitude Testbed



Practical Application: Spacecraft Orbit Propagation



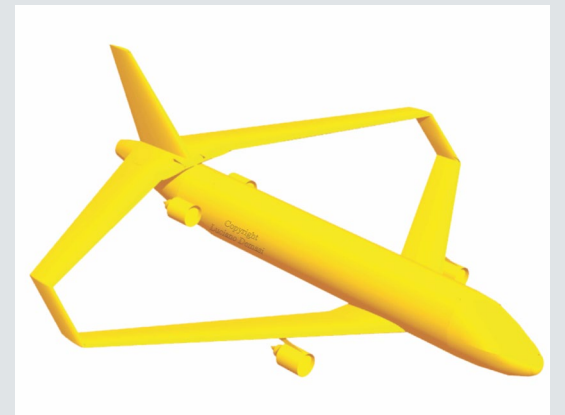
Spacecraft Platform for Astronautics and Celestial Emulation



Luciano Demasi

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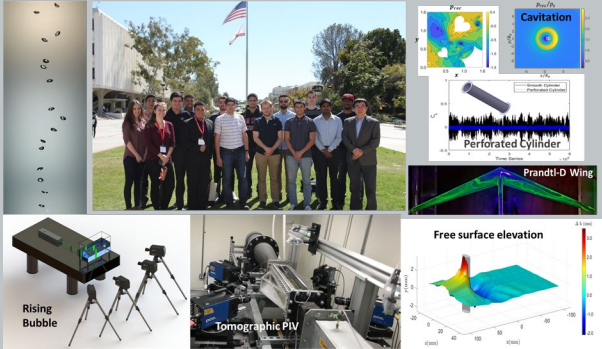
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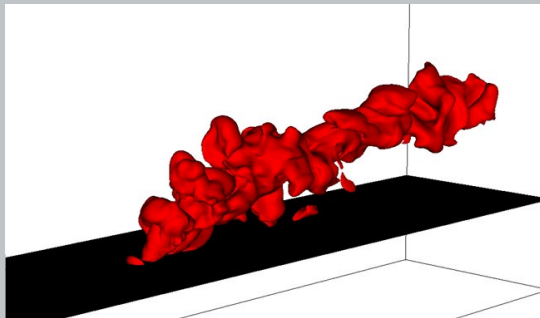


Laboratory of Advanced Experimental Fluid Dynamics



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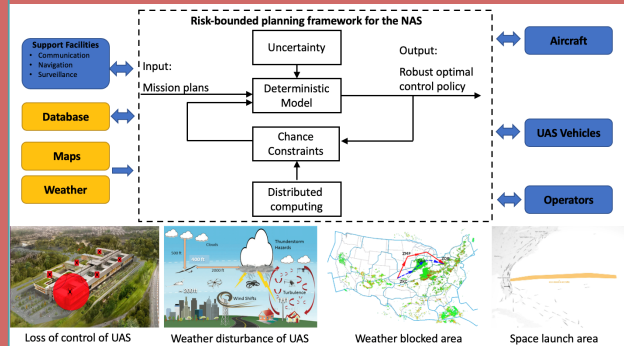


Visualization of a turbulent hydrogen jet in air crossflow



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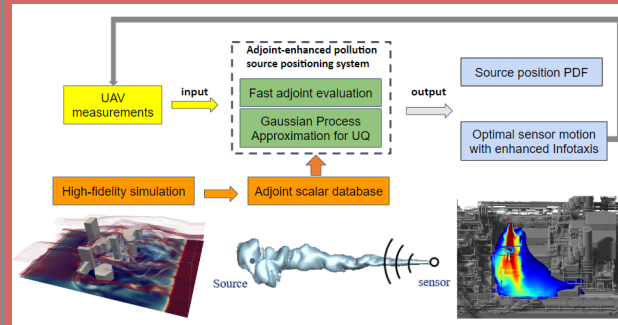


Autonomy & Control for Intelligent Air Transportation

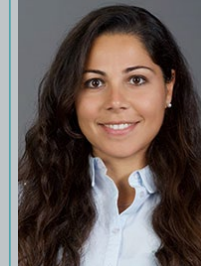


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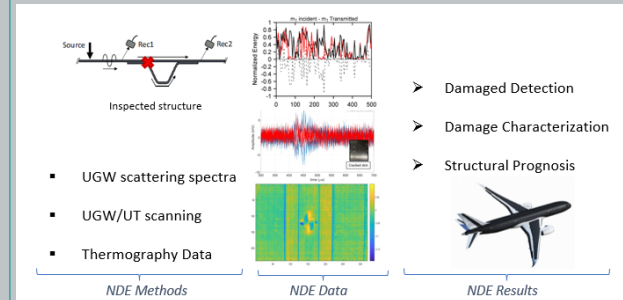
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Big-data strategy for fast pollution tracking



Margherita Capriotti
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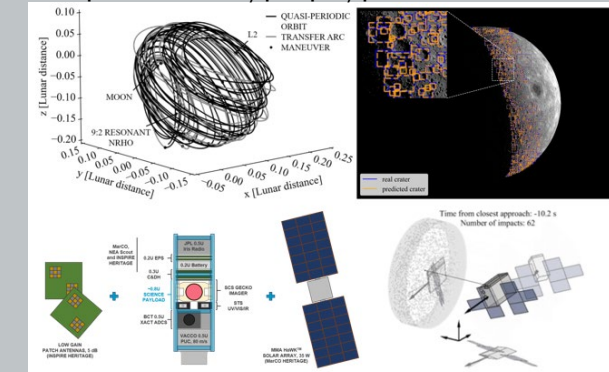


Non-Destructive Evaluation (NDE) database
and analysis for damage characterization



Pablo Machuca
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Trajectory Design, Autonomous Optical Navigation, CubeSat
Systems Design, and GNC

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