Welcome to SDSU

SDSU

College of Engineering

Aerospace Engineering

Master of Science program (MSAE)

An Introduction to the AE Faculty

Chair's Message

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.
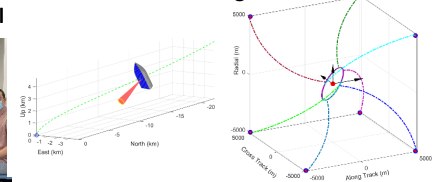
Ping Lu
Professor and Chair
Guidance and Control,
Aerospace Autonomy
Email: plu@sdsu.edu

Prof. Lu's research group of students in Computational Guidance and Control
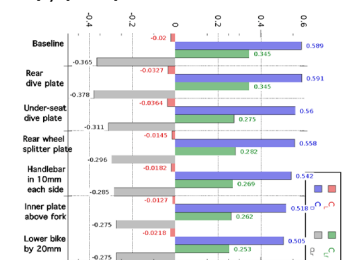
Advanced planetary powered descent guidance

Joseph Katz

Professor
Expertise: Fluid Mechanics, Aerodynamics
Email: jkatz@mail.sdsu.edu
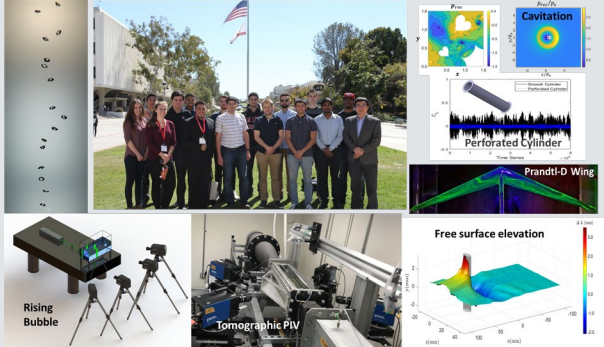
https://aerospace.sdsu.edu/faculty/josephKatz

Xiaofeng Liu
Associate Professor,
AE Graduate Advisor
Experimental Fluid
Dynamics, Aerodynamics
and Multiphase Flow
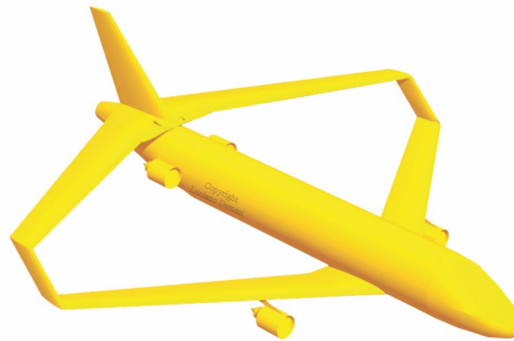Xiaofeng.Liu@sdsu.edu

Lab webpage: http://liu.sdsu.edu

Laboratory of Advanced Experimental Fluid Dynamics

Luciano Demasi
Professor
Expertise: Aerospace
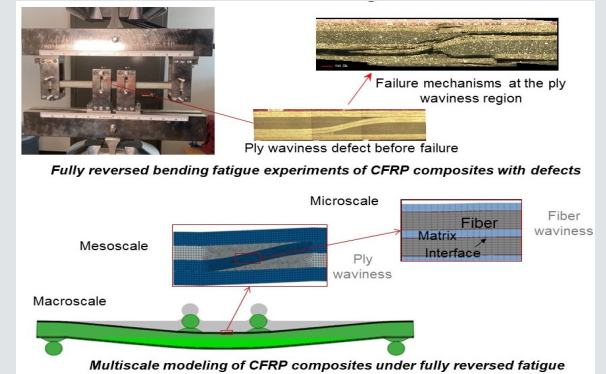Structures, Aeroelasticity
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ldemasi@mail.sdsu.edu

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Satchi Venkataraman
Professor
Aerospace Structures,
Composite Materials,
and Design Optimization
Email:
satchi@mail.sdsu.edu

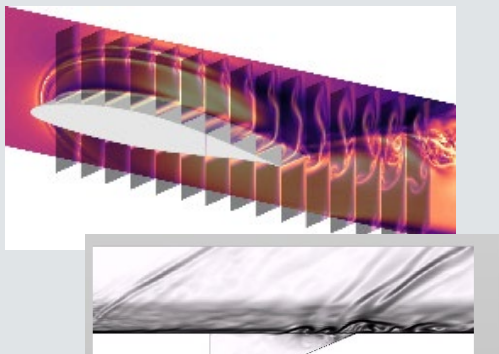http://engineering.sdsu.edu/~satchi/

Fully reversed bending fatigue experiments of CFRP composites with defects

Multiscale modeling of CFRP composites under fully reversed fatigue

Gustaaf (Guus) Jacobs
Professor
Computational Fluid
Dynamics CFD
gjacobs@mail.sdsu.edu

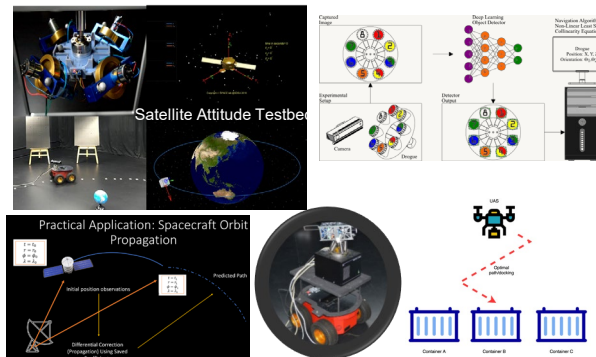https://newscenter.sdsu.edu/citer/

Unsteady Simulation of Flow in Propulsion Systems

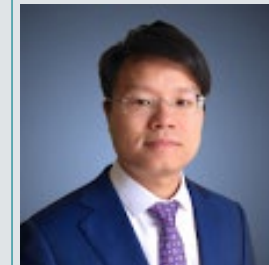**Ahmad Bani-Younes**
Associate Professor
Astrodynamics,
Spacecraft Guidance
Navigation and Control
abaniyounes@sdsu.edu
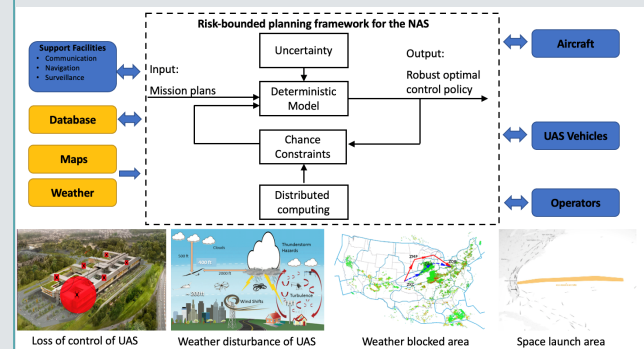
Lab webpage: https://space.sdsu.edu

Spacecraft Platform for Astronautics and Celestial Emulation

Jun Chen
Associate Professor
Dynamics, Control, and
Optimization for large-
scale networked
dynamical systems
jun.chen@sdsu.edu

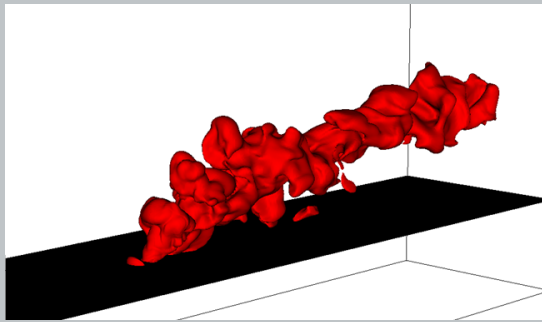Lab webpage: https://junchen.sdsu.edu/

Autonomy & Control for Intelligent Air Transportation

Pavel Popov
Associate Professor
CFD, Propulsion, Plasma-combustion interactions
ppopov@sdsu.edu

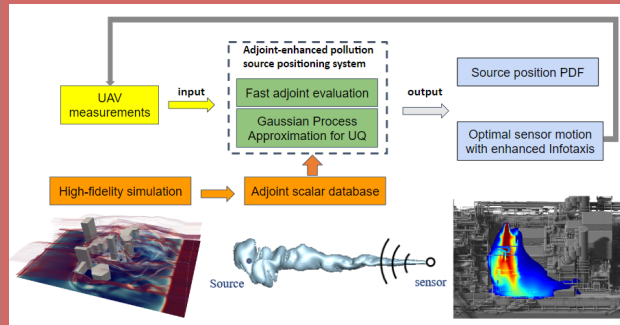https://aerospace.sdsu.edu/faculty/pavelpopov

Visualization of a turbulent hydrogen jet in air crossflow

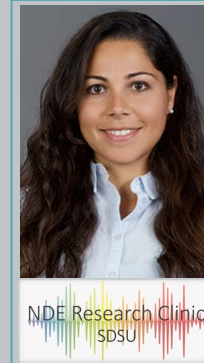**Qi Wang**
Assistant Professor
Aerodynamics, Fluid Mechanics
Email: qwang4@sdsu.edu
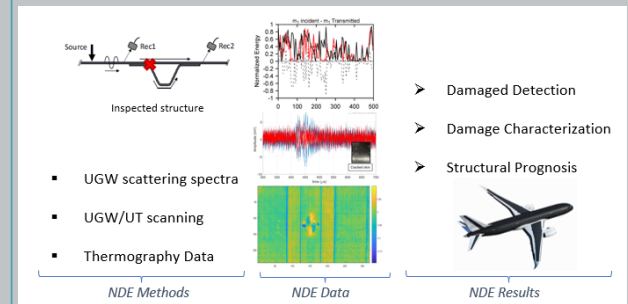
Lab webpage: qiwang.sdsu.edu

Big-data strategy for fast pollution tracking

Margherita Capriotti
Assistant Professor
Non-destructive evaluation techniques, ultrasonic guided wave (UGW) propagation and scattering, composite structures and biomedical applications
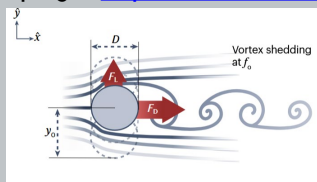mcapriotti@sdsu.edu

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

Roni Goldshmid
Assistant Professor
Expertise: Fluid mechanics, thermal fluids, machine learning
Email: rgoldshmid@sdsu.edu
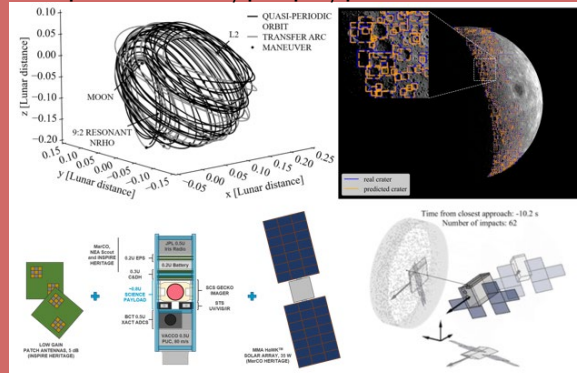Lab webpage: experimentalfluids.com

Development of wildland aerial firefighting tools

Pablo Machuca
Assistant Professor
Expertise: Astrodynamics, Autonomous GNC, Mission Analysis, Systems Design
Email: pmachuca@sdsu.edu
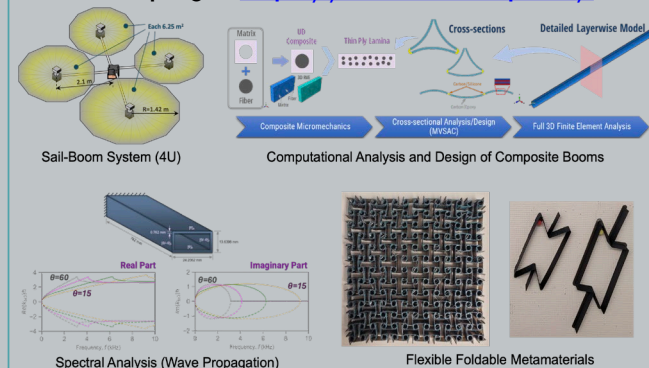
aerospace.sdsu.edu/people/pablo-machuca

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

Manoj K. Dhadwal
Assistant Professor
Expertise: Deployable space structures, Digital twins, Nonlinear dynamics.
mdhadwal@sdsu.edu

Lab webpage: https://astroflexis.space/

Sail-Boom System (4U)

Computational Analysis and Design of Composite Booms

Spectral Analysis (Wave Propagation)

Flexible Foldable Metamaterials

Dynamics of deployable space structures

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