ROSTER

Name/Term		Area of Research
Postdoctoral Fellows		
BALLOUZ, Dr. Eric 04/2025-present	Ph.D. Mechanical Engineering, 2025, California Institute of Technology	Nonstationary turbulence, wall-bounded flows, and coherent structures
BROUZET, Dr. Davy 10/2020–08/2025	Ph.D. Mechanical Engineering, 2020, University of Melbourne, Australia	Turbulent combustion, aeroacoustics and combustion noise, direct numerical simulation, and large-eddy simulations of reacting flows
CABRERA-BOOMAN, Dr. Facundo 06/2024–06/2025	Ph.D. Physics, 2021, École Normale Supérieure de Lyon, France	Experimental fluid dynamics, wall-bounded turbulence, and multiphase flows
CHANG, Dr. Ray 02/2025-present	Ph.D. Bioengineering, 2024, Stanford University & M.D., College of Medicine, 2019, National Taiwan University, Taiwan	Experimental fluid mechanics, microfluidics, and bio-fluid mechanics
CICCHINO, Dr. Alexander 09/2024–present	Ph.D. Mechanical Engineering, 2024, McGill University, Canada	Numerical analysis, turbulence, computational multiphysics, and high-performance computing

FERREIRA, Dr. Tania 08/2024–present	Ph.D. Engineering Science & Technology, 2021, Université Catholique de Louvain, Belgium	Large-eddy simulations of contrails, ice microphysics, aircraft propulsion and wakes, and radiative forcing of contrails
GOMEZ, Dr. Salvador Rey 11/2023–present	Ph.D. Aeronautics, 2023, California Institute of Technology	Resolvent analysis, hydrodynamic stability, compressible turbulent flows, and direct numerical simulation
JAROSLAWSKI, Dr. Tomek 04/2023–present	Ph.D. Fluid Mechanics, ONERA and Institut Supérieur de l'Aéronautique et de l'Espace, 2023, Toulouse, France	Experimental fluid mechanics, transitional and turbulent boundary layers, microfluidics, particle sedimentation, canopy flows, and insect aerodynamics
KASZAS, Dr. Balint 09/2025-present	Ph. D. Mechanical Engineering, 2023, ETH Zurich, Switzerland	Geophysical fluid dynamics, dynamics of coherent structures, instabilities, and nonlinear dynamics
LEE, Dr. Sangjoon 09/2024–12/2025	Ph.D. Mechanical Engineering, 2024, University of California, Berkeley	Vortex and turbulence physics and instability, high-performance computing, and hydrodynamic data-driven optimization
MASSEY, Dr. Jonathan 11/2025-present	Ph.D. Maritime Engineering, 2023, University of Southampton	Wall-bounded turbulence, pressure fluctuations, and high Reynolds number flows
NEKKANTI, Dr. Akhil 02/2025-present	Ph.D. Mechanical and Aerospace Engineering, 2023, University of California San Diego	Aeroacoustics, flow control, vortex dynamics, and reduced-order modeling

PETROPOULOS, Dr. Nicolaos 01/2025-present	Ph.D. Applied Mathematics and Theoretical Physics, 2024 University of Cambridge	Turbulence in stratified flows, mixing, and geophysical flows
SALOMONE, Dr. Teresa 02/2025-present	Ph.D. Mechanical Engineering, 2024, Queen's University & University of Campania Luigi Vanvitelli	Computational fluid dynamics, wall modeled LES, and roughness modeling
SMITH, Dr. Sarah 12/2025-present	Ph.D. Mechanical Engineering, 2023, Université Grenoble Alpes, Grenoble, France & 2025, Portland State University, Oregon	Experimental fluid mechanics, wakes and wall-bounded turbulence, convective heat transfer, particle—laden turbulence and clustering, and canopy flows and roughness effects
SONG, Dr. Hang 10/2024-present	Ph.D. Mechanical Engineering, 2024, Stanford University	Compressible turbulent flows, high-order numerics, parallel computing, and transonic aerodynamics
STOCK, Dr. Antoine 05/2025-present	Ph.D. Fluid Mechanics, 2024, CORIA, Normandie University, France	Adaptive mesh refinement, high-performance computing, and large-eddy simulation
VIJAY, Dr. Shilpa 04/2024–present	Ph.D. Mechanical Engineering, 2023, University of Southern California	Passive scalar transport, rough wall boundary layer flows, and experimental techniques
WANG, Dr. Jianyu 11/2023–present	Ph.D, Hydraulic Engineering, 2023, Tsinghua University, China	Non-uniform wind flow, atmospheric boundary layer, atmospheric turbulence, and numerical simulations

YU, Dr. Hang 10/2024–present	Ph.D. Mechanical Engineering, 2024, University of Southern California	Fluid-structure interaction and aeroelasticity, immersed boundary method, numerical methods, and high-performance computing
ZABALETA, Dr. Federico 10/2023–present	Ph.D, Civil and Environmental Engineering, 2023, University of California, Davis	Multiphase flows, ice accretion modeling, and air entrainment
ZAHTILA, Dr. Tony 08/2023–11/2025	Ph.D. Mechanical Engineering, 2023, University of Melbourne, Australia	Uncertainty quantification, computational fluid dynamics, and turbulent flows

Research Associate

HWANG, Dr. Hanul 04/2022–present	Ph.D. Mechanical Engineering, 2022, Stanford University	Multiphase flows, hydrodynamic stability, atomization, wind-wave interaction, and numerical methods

Senior Research Fellows

BOSE, Dr. Sanjeeb	Adjunct Professor, Institute for Computational & Mathematical Engineering, and Cadence Design Systems	Wall models for LES numerical methods, and high-performance computing
DI RENZO, Dr. Mario	Associate Professor, Università del Salento, Italy	Hypersonics, electrified combustion, interaction of turbulence with shock waves and chemistry, and numerical methods for compressible reacting flows
ROSSINELLI, Dr. Diego	Adjunct Professor, Institute for Computational & Mathematical Engineering, Associate Director of PSAAP III Center	Large-scale flow simulations, computational imaging for flow experiments, fluid-structure interaction simulations, spectral schemes, and supercomputing

Senior Scholars

KLEWICKI, Prof. Joseph 02/25-01/26	University of Melbourne	Turbulent wall-flows, experimental methods, Reynolds number scaling, and vorticity dynamics
VERMA, Prof. Mahendra 05/25-07/25	Indian Institute of Technology, Kanpur	Turbulent thermal convection, magnetohydrodynamic turbulence, high performance computing for CFD, and astrophysical fluids

Doctoral Students

BALAKRISHNA, Arun	Physics of cloud breakup in the atmospheric boundary layer
BROWN, Lucy Jane	Numerical methods for multiphase flows using phase-field methods, applied to simulations of drop impingement with freezing
COIMBRA, Miya	Turbulence modeling utilizing triadic interactions
ELNAHHAS, Ahmed Mohammed Ahmed	Spatiotemporally-resolved multiscale interactions between coherent structures in wall-bounded turbulence
FLINT, Tim Joop	Linear disturbance receptivity, amplification, and transition on blunt cones at high Mach number
GONZALEZ, Carlos Alejandro	A predictive wall model for laminar-turbulent transition for large-eddy simulation in external aerodynamics
RIOS TASCON, Federico	Data-driven modeling of high-speed reactive flows using Fourier neural operators
WHITMORE II, Michael Patrick	Slip wall modeling for large-eddy simulation of complex turbulent flows
WILLIAMS, Christopher Thomas	Direct and large-eddy simulation of reacting hypersonic boundary layers