

DisCoVor 2026 Schedule

SUNDAY (7 JUNE)

14:30	Social Event: Arthur's Seat Hike
18:30	Welcome Reception/Registration

MONDAY (8 JUNE)

08:30	Arrival Coffee & Opening Ceremony		
09:00	Vortex Structures I (chair: Jovan Nedić)	Numerical Investigation into the Multiphase Vortex	Tzu-Yao Huang
09:15		Effects of freestream turbulence on a propeller tip vortex	Leah-Kathleen Lavoie
09:30		Three-Dimensional Interactions of Equal-Strength Co-Rotating Vortex Pairs and Associated Far-Field Acoustic Signatures	Zehao Sun
09:45		Irrotational and rotational force contributions during vortex-ring formation from volumetric particle tracking	Ali R. Khojasteh
10:00	Coffee Break		
10:30	Keynote	Vortex sheets in unsteady flows: How old ideas can still be useful	Holger Babinsky
11:00	Vortex Structures II (chair: Anya Jones)	On the stability of an in-line formation of hydrodynamically interacting flapping plates	Anand Oza
11:15		Three-dimensional vortex structures in the wake of whisker-inspired models influence fluid damping force	Eva Erickson
11:30		Unsteady Foil Interactions with Free Stream Turbulence	Mohammad Mustafa Khan
11:45		Resonance to rest: Influence of impulse pitch kinematics on unsteady flow development	Christian Toma
12:00	Coffee Break		
12:30	Gust (chair: Ignazio Maria Viola)	Large-scale vortical similarities between laminar and turbulent extreme aerodynamics	Hiroto Odaka
12:45		Unsteady-Flow-Induced Vortex Dynamics and Aerodynamic Loading on a Spinning Cylinder	Wen Wu
13:00		Unsteady Drag on Wing-Gust Encounters	Ignacio Andreu
13:15		Unsteady aerodynamic forces on a NACA 4412 wing flying in ground effect above single-frequency water waves	Cecilia Huertas Cerdeira
13:30	Lunch		
14:30	Social Event: Calton Hill Hike		
17:00	Poster Session 1 at King's Buildings		

TUESDAY (9 JUNE)

08:30	Arrival Coffee		
09:00	Flow Control (chair: Sunetra Sarkar)	Active control of vortex shedding in transonic buffet using online dynamic mode decomposition	Nitish Arya
09:15		Effect of Sinusoidal Trailing Edges on Reverse Flow over a NACA 0015 Airfoil in Static Conditions	Ranga Srinivas Gokul
09:30		Mechanisms of vortex ring formation and evolution in sniffing flows	Evan Williams
09:45		Active Electromagnetic Control of Flapping Foil Flows: Vortex Dynamics and Performance Enhancement	Hong Ren
10:00	Coffee Break		
10:30	Keynote	A minimal wake-vortex model explains formation flight of flapping birds	Olivia Pomerenk
11:00	Bio-inspired flows I (chair: Jeff Eldredge)	Kinematic History of Wake Interaction in Sinusoidal Flapping	Dirk de Boer
11:15		Vortex-synchronised undulatory swimming via stretch feedback	Alexandros Anastasiadis
11:30		Vortex street sensing using seal whisker inspired sensor arrays	Xudong Zheng
11:45		Deformable Vortex Force Map Decomposition for Swimmers	Xingxin Yang
12:00	Coffee Break		
12:30	Bio-inspired Flows II (chair: Gabriel Weymouth)	Stable formations and hydrodynamics of a tuna-inspired bio-robot school	Puja Sunil
12:45		Flow-Induced Acoustics Around Schools of Anguilliform Swimmers	Muhammad Khalid
13:00		Collective hydrodynamics of robotic fish	Hassan Masoud
13:15		Phase-Aligned Latent Quantization: An Interpretable ROM of Flapping Wing Dynamics with VQ-VAEs	Sunetra Sarkar
13:30	Lunch		
14:30	Social Event: Guided City Tour		

WEDNESDAY (10 JUNE)

08:30	Arrival Coffee		
09:00	Wind & Tidal (chair: Kenny Breuer)	Experimental study of roughness effects on unsteady airfoil aerodynamics at scales relevant to modern offshore wind turbines	Victoria Malarczyk
09:15		Impacts of surface wave interactions on dynamic stall for cross-flow turbines	Sara Hartke
09:30		Effect of winglets on tidal turbine tip vortex dynamics	Anna Young
09:45		Blade-shaft interactions in small-scale vertical-axis wind turbines	Anushka Goyal
10:00	Coffee Break		
10:30	Keynote	Scaling laws for lift generation of flapping wings in compressible flows	Fang-Bao Tian
11:00	Fluid-structure Interaction I (chair: Rajat Mittal)	The interface manifold aware projection method: A fast, high-fidelity immersed formulation for incompressible flows	Azzurra Meo
11:15		Kirigami sheets interacting with incoming vortices	Yahya Modarres-Sadeghi
11:30		Near-singular integrals in 3D potential flow, applied to vortex ring interaction with ellipsoidal bodies	Monika Nitsche
11:45		Flow-induced vibration of two side-by-side filaments in cross flow	Sanjay Mittal
12:00	Coffee Break		
12:30	Fluid-structure Interaction II (chair: Bharathram Ganapathisubramani)	Transverse Gust Response of Untethered Bodies	Ahmet Gungor
12:45		3D Vortex Interactions of Self-Propelled Flappers in Tandem	Maximilian Schenk
13:00		Vortex dynamics of optimised foils in curvilinear flows	Benjamin Irwin
13:15		Nonlinear coupling between a flapping foil and a wavy flow	Daniel Floryan
13:30	Lunch		
14:30	Social Event: Visit to National Museum of Scotland		
17:30	Poster Session 2 at Playfair Library		
19:30	Colloquium Dinner		

THURSDAY (11 JUNE)

08:30	Arrival Coffee		
09:00	Wake & Turbulence (chair: Jerry Westerweel)	Is trailing vortex wandering connected to wing parasitic drag?	Denis-Gabriel Caprace
09:15		Wake Organization in Vortex Ring State under Axial and Inclined Descent	Ambar Garofano Soldado
09:30		Hysteretic Transition in Vortex-induced Vibrations: Insights From PIV and Synchronised Force Data	Serhij Yarusevych
09:45	Separated Flows (chair: Karen Mulleners)	Towards Developing Reduced-Order Models for Active Flow Control from Experimental Data	Isabel Scherl
10:00		Causality Analysis of a Turbulent Separation Bubble	Louis Cattafesta
10:15		"Vortices Are Bad" (For Turbine Efficiency)	Eric Limacher
10:30		Flow past an integrated wing/nacelle model using Lagrange particle tracking	Aqib Khan
10:45	Coffee Break		
11:15	Fluid-structure Interaction III (chair: Karthik Menon)	Effects of Accelerated Plunging on the Wake dynamics of Bio-Inspired Morphing Wings	Chandan Bose
11:30		Vortex dynamics and force production of a drag-based paddle near an actively surging substrate at intermediate Reynolds number	Margaret Byron
11:45		Energy harvesting from vortex-induced vibrations with wake interference	Francisco Huera-Huarte
12:00	Closing & Awards Ceremony		
12:30	Lunch		

Poster Session 1 (Monday - 8 June) King's Buildings 17:00-19:30	Exploring the behaviour of flexible canopies in unsteady flow Burst Smart, Not Hard: Manoeuvring Aerofoils for Efficient Swimming Hydrodynamic study of six rowing blades using multi-layer planar PIV The two orthogonal vortices generated by ascending coaxial amphibious rotors Gusts on Demand: Discrete Vortex Generation Behind a Pitching Wing Characterization of vortical gust encounters of a delta wing Hydrodynamic effects of jellyfish tentacles on vortex dynamics and propulsion Making three-dimensional vortex methods divergence-preserving and resilient to distortion through a novel Lagrangian lattice-based scheme Increasing Reynolds Number Promotes Wake Stabilisation Behind a Permeable Disk A centerline interpolation method for vortex core identification Pulse jetting thrust generation with asymmetric kinematics Optimisation of morphing flapping wings in hovering flight Co-Generation Potential of Oscillating Hydrofoil Turbines Beneath Floating Offshore Wind Turbine Platforms Vortex Meander in Proximity to a Supersonic Boundary Layer Harnessing Vortex Wake Interactions for Control of Multi-Body Fluid-Structure Systems A generalized Karman-like drag law for vortex-dominated bluff body wakes Vortex dynamics and blood damage in presence of bileaflet mechanical heart valves for different aortic root morphologies	Abhinav Muta Bailey McAtee Shanwei Zhou Logan Honts Merle Weniger Jeff Eldredge Nicole Xu Otis Van Kerm Doudou Huang Gregory Janes Alexander O'Loughlin Florian Bouard Ata Tankut Ardic Joshua Langfield Kourosh Shoele Mark Stremler Somnath Roy
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Poster Session 2 (Wednesday - 10 June) Playfair Library 17:30-19:30	Q is All you Need: Disentangling the Effect of Vortex Strength and Proximity on Force Generation in Vortex Dominated Flows Flow instabilities for an edgewise flow over hollow cylindrical cavities Vortex Flow Control Using Juncture Fillets on a Blunt-Nosed, Highly Swept Compound Wing Bio-inspired undulating tapered foils Unsteady interaction between propeller tip-vortices and a downstream turbulent boundary layer Role of Vortex Shedding on the Growth and Saturation of the Flapping Amplitudes of Flags Hydrodynamic trails of towed circular cylinder and their tracking using seal whisker inspired sensor arrays Aerodynamics force estimates from flow field measurements in insect-inspired vibrating wings Twist-Induced Wake Modulation of Actively Deforming Wings Measuring and modeling the response of a freely-flying wing to vortex gusts Lagrangian Coherent Structure Analysis of Leading-Edge Vortex Detachment Do We Need Vortexicity? Insights From Multi-Fidelity Models of Pitching Airfoils. The Effect of Planform Shapes on the Evolution of Circulation of a Finite Wing Near an Interface Thrust production mechanisms and vortex shedding dynamics of heaving and pitching propulsors Vortex Force Map Analysis for Semi-Aeroelastic Hing	Rajat Mittal Yilan Lu Nikki van Luijk Manuel Lorite Diez Aaron Sequeira Henrike Christ Xudong Zheng Alexandre Dallot Yukesh Karki Eric Handy-Cardenas Nicholas Maier Karthik Menon Samik Bhattacharya Melissa Green Matteo Liguori
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