Draft Schedule – Water Waves: Mathematical Theory & Applications

Wednesday, August 28th

9:00-10:00: Arrival/coffee

10:00-10:50: Karsten Trulsen - Experimental investigation of the statistics of extreme waves and wave forces on top of and behind a shoal
10:50-11:20: Svenja Ehlers - Physics-informed neural networks for phase-resolved wave data assimilation and prediction
11:20-11:50: Yang Lu - Variational numerical modelling strategies for the simulation of driven free-surface waves
11:50-12:00: One minute poster talks

12:00-13:30: Lunch

13:30-14:20: Paul Taylor - TBD
14:20-14:50: Coffee
14:50-15:40: Emiliano Renzi - Analytical investigation of linear and weakly nonlinear mechanisms of extreme wave emergence atop a submerged shoal in two-dimensional bathymetry
15:40-16:30: David Henry - Flow Underlying Coupled Surface and Internal Water Waves

Thursday, August 29th

9:00-9:50: Peter Janssen - Random phase approximation implies nearly homogeneous wave turbulence
9:50-10:20: Coffee
10:20-11:10: Alex Doak - Free-surface waves with arbitrary vorticity
11:10-12:00: Simone Michele - Heat transfer in the ocean wave-driven free-surface boundary layer

12:00-13:30: Lunch

13:30-14:20: Guillaume Ducrozet - Combined use of experimental and numerical wave tanks to investigate nonlinear wave properties
14:20-15:10: Dan Liberzon - Laboratory tool for spatio-temporal measurements of waves and slopes based on polarimetric sensing and Machine Learning
15:10-15:40: Coffee
15:40-16:30: Calin Martin - Azimuthal equatorial flows: exact solutions and stability results

16:30-17:30: Tour of COAST Lab (TBC)

Version 2 August 2024

Friday, August 30th

9:00-9:50 Henrik Kalisch - Wave run-up on the West Coast of Norway
9:50-10:20: Coffee break
10:20-10:50: Conor Curtin - The Lagrangian formulation for wave motion with a shear current
10:50-11:40: Ioannis Karmpadakis - The statistics of waves over planar coastal bathymetry: Experiments and numerical simulations
11:40-11:45: Closing Remarks
11:45-13:30: Lunch/departure