

Program

Tuesday, Apr. 5, 2022

- 10:30-10:35 Opening remarks
- 10:35-11:25** Interaction between deep convection and large-scale tropical circulations.
Keynote Lecture I **Simona Bordoni**, U. Trento/Caltech

Session 1: Tropical dynamics

- 11:25-11:40 Nonlinear interaction between the drivers of the Monsoon and summertime stationary waves. **Chaim Garfinkel (HUJI)**
- 11:40-11:55 Contribution of cross-equatorial dry intrusions to Indian summer monsoon rainfall. **Deepika Rai (WIS)**
- 11:55-12:10 Future tropical precipitation changes are set by large-scale meridional circulation shift. **Eli Galanti (WIS)**
- 12:10-12:25 The tropical symmetric bias. **Ofer Shamir (NYU)**

12:25-13:40 Lunch outside the lecture hall

Session 2: Ocean dynamics

- 13:40-13:55 The dual energy cascade in oceanic turbulence. **Roy Barkan (TAU)**
- 13:55-14:10 Eastern Mediterranean sea circulation and surface transport.
Vicky Verma (TAU)
- 14:10-14:25 Mediterranean outflow water pathways in the North Atlantic: A Lagrangian study of reanalysis data. **Ori Saporta-Katz (WIS)**
- 14:25-14:40 Climatology of equatorial currents and sea surface salinity: The evaporation length schema. **Nathan Paldor (HUJI)**

Session 3: Climate change

- 14:40-14:55 The roles of midlatitude diabatic heating and eddy heat flux in the jet response to climate change. **Orli Lachmy (OPENU)**
- 14:55-15:10 Larger and less persistent summer temperature anomalies in the Southern Hemisphere mid-latitudes by the end of the 21st century. **Itamar Karbi (WIS)**
- 15:10-15:25 Improved reliability and accuracy of CMIP5 global mean surface temperature projections. **Golan Bel (BGU)**
- 15:25-15:40 The statistics of extreme rain events revisited. **Naftali Smith (BGU)**

Session 4: Poster session

- 15:40-15:55 One-minute introductions
- 15:55-17:25 Poster presentations, coffee and beer
- P1 • Extension of the analogy between geostrophic flow and the classical Hall Effect to the integer quantum Hall Effect – the roles of zero absolute vorticity dynamics and the quantum potential. **Eyal Heifetz (TAU)**
 - P2 • Wildfire Smoke Highlights Troposphere-to-Stratosphere Pathway
Leehi Magaritz-Ronen (WIS)
 - P3 • Stationary wave biases and their effect on upward troposphere - stratosphere coupling in sub-seasonal prediction models. **Chen Schwartz (HUJI)**
 - P4 • Stratigraphic and isotopic evolution of the martian polar caps from paleo-climate models. **Eran Vos (WIS)**
 - P5 • Projected future changes in equatorial wave spectrum in CMIP6.
Hagar Bartana (HUJI)
 - P6 • The response of the Ferrel cell and eddy driven jet to climate change and the role of moisture. **Soumik Ghosh (WIS)**
 - P7 • The gravity wave parameterization calibration problem: A 1D QBO model testbed. **Ofer Shamir (NYU)**
 - P8 • Internal tide variability and their influence on the dynamics in the Gulf of Eilat.
Nadav Mantel (HUJI)
 - P9 • Precipitation response to climate change in the Mediterranean region.
Benny Keller (HUJI)
 - P10 • Global SST-distribution as function of time and penetration depth of solar radiation. **Stefan Graf (HUJI)**
 - P11 • Validation of a subglacial hydrology model using groundwater flow in aquifers.
Jeremie Schmiedel (BGU)
 - P12 • Energy exchanges between a 2D front and near-inertial waves.
Subhjit Kar (TAU)
 - P13 • Numerical modeling of ice shelves and extensional flows. **Lielle Stren (BGU)**
 - P14 • The diurnal cycle of surface winds. **Yossi Ashkenazy (BGU)**
 - P15 • The depth of Jupiter's Great Red Spot revealed by Juno gravity overflights.
Yohai Kaspi (WIS)
 - P16 • The intensification of winter mid-latitude storm tracks in the Southern Hemisphere. **Rei Chemke (WIS)**

Session 5

17:25-18:15 Modern theories of Monsoons and ITCZs.
Keynote Lecture II **Simona Bordoni**, U. Trento/Caltech

18:45-22:00 Dinner at Sfinat Hamidbar (bus leaves from the conference room)

22:00- Pub at Midreshet Ben-Gurion

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07:30-12:00	Short hike (6km), including breakfast outside the sleeping area
12:00-13:00	Lunch break at Mitzpe Ramon
13:40-14:30	Hierarchical modeling of Monsoons, Keynote Lecture III Simona Bordonni , U. Trento/Caltech
Session 6: Planetary dynamics and paleoclimate	
14:30-14:45	Evidence for multiple Ferrel-like cells on Jupiter. Keren Duer (WIS)
14:45-15:00	The number and location of Jupiter's circumpolar cyclones explained by vorticity dynamics. Nimrod Gavriel (WIS)
15:00-15:15	Dynamical regimes of polar vortices on terrestrial planets with a seasonal cycle. Ilai Guendelman (WIS)
15:15-15:30	Can banded iron formations be produced under soft snowball conditions? Kaushal Gianchandani (BGU)
15:30-15:50	Coffee break
Session 7: Wave dynamics	
15:50-16:05	Eddy-Internal wave decomposition and kinetic energy transfers in high-resolution turbulent channel flow with near-inertial waves. Michal Shaham (TAU)
16:05-16:20	Quasi resonance in a leaky waveguide? Nili Harnik (TAU)
16:20-16:35	Wave-mean-flow interaction in shear flows. Erik Gengel (TAU)
16:35-16:50	Geostrophic adjustment on the mid-latitude beta-plane. Itamar Yacobi (HUJI)
16:50-17:05	On the tropospheric response to transient stratospheric momentum torques. Ian White (HUJI)
Session 8 : Storm-tracks dynamics	
17:05-17:20	Estimating the lowest latitude of baroclinic growth. Oren Peles (OPENU)
17:20-17:35	The mistral wind from a Rossby-wave perspective: a climatological classification of RWB. Yonatan Givon (WIS)
17:35-17:50	Suppression of baroclinic eddies by strong jets. Or Hadas (WIS)
17:50-18:05	Variability of the North Atlantic storm track and its influence on wintertime cyclonic activity in the Eastern Mediterranean. Dor Sandler (TAU)
18:20	Bus departure