



GFD days 2016 (IV)



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Tuesday, Jan. 19, 2016

10:20-10:30 *Opening remarks:* **Boris Zaltzman**, BIDR Dean, BGU

Session 1: Modeling and Climate Change

- 10:30-11:30 *Global climate models and atmospheric dynamics – building model hierarchies*
Keynote lecture I: **Isaac Held**, GFDL
- 11:30-11:45 *The non-Gaussianity and spatial asymmetry of temperature extremes relative to the jet: the role of horizontal advection*
Chaim Garfinkel, HUJI
- 11:45-12:00 *Enhanced poleward propagation of storms under climate change*
Talia Tamarin, WIS
- 12:00-12:15 *Decadal Climate Predictions Using Sequential Learning Algorithms*
Ehud Strobach, BGU
- 12:15-12:30 *Eddy response to climate change-like temperature changes in a simple general circulation model*
Janni Yuval, WIS

12:30-13:30 Lunch break

Session 2: Turbulence

- 13:30-13:45 *Mean flows generated by inverse turbulence cascades in fluid layers*
Gregory Falkovich, WIS
- 13:45-14:00 *Effects of internal gravity waves on stably stratified atmospheric turbulence*
Igor Rogachevskii, BGU
- 14:00-14:15 *On particle-driven gravity currents in power-law cross-section channels*
Tamar Zemach, Tel-Hai
- 14:15-14:30 *The effect of eddy-eddy interactions on jet formation and macroturbulent scales*
Rei Chemke, WIS
- 14:30-14:45 *Breaking of flow symmetries by an inverse cascade in a rectangular box*
Anna Frishman, WIS
- 14:45-15:00 *Theoretical and numerical investigation of nonlinear waves in zonal tropic turbulence*
Nimrod Cohen, BGU

Session 3: General poster session

15:00-15:20 90 second poster introductions

15:20-16:30 Poster session, coffee and beer

- *Can precipitation over Israel be predicted from Eastern Mediterranean heat content?*
Yael Amitai, HUJI
- *Relative Role of the MJO and Stratospheric Variability in North Atlantic Climate Patterns During Boreal Winter*
Chen Schwartz, HUJI
- *A midwinter minimum in Atlantic storm track intensity during years of strong subtropical jet*
Hilla Afargan, WIS
- *Drivers of the recent tropical expansion in the Southern Hemisphere: Changing SSTs or ozone depletion?*
Chaim Garfinkel, HUJI
- *The effect of rotation rate on equatorial superrotation on Venus*
Marzia Parisi, WIS
- *The effect of Milankovich cycles on the structure of the marine ecosystem*
Hadar Berman, HUJI
- *Bartropic inverse energy cascade in the atmosphere and ocean*
Tom Dror-Schwartz, WIS
- *The Gulf of Eilat/Aqaba: a natural driven cavity?*
Hezi Gildor, HUJI
- *A fluid mechanical model for the formation of rifts in ice shelves*
Ro'iy Sayag, BGU
- *Energy transfer of surface wind-induced currents to the deep ocean via resonance with the Coriolis force*
Yosef Ashkenazy, BGU
- *Surface melt during a faint young sun due to high atmospheric mass*
Yohai Kaspi, WIS

Session 4: Tropical dynamics

- 16:30-16:45 *On the existence of Kelvin and Yanai Wave solutions of the Shallow Water Equations on the Equator of a Rotating Sphere*
Nathan Paldor, HUJI
- 16:45-17:00 *Gradient Imbalance at the Outflow of Idealized Tropical Cyclone in a Three Layer Moist Neutral Model*
Yair Cohen, TAU
- 17:00-18:00 *Keynote Lecture II: Simulating and understanding tropical cyclone climatology – realistic and idealized models*
Isaac Held, GFDL

18:45-20:00 Dinner

20:00-23:30 Night social activity

20:00-20:30 Orientation to the night sky (in conference room). Yohai Kaspi

20:30-22:30 Night hike and star gazing

Wednesday, Jan. 20, 2016

07:30-11:30 Hike in Yeruham Crater (including breakfast)

Keynote Lecture III:

12:00-13:00 *Miscellaneous GFD problems that I am interested in*
Isaac Held, GFDL

13:00-14:00 Lunch break

Session 5: Ocean Circulation

14:00-14:15 *Physical-biological interactions in the Gulf of Elat*
Hadar Berman, HUJI

14:15-14:30 *The mechanism of hypolimnion warming induced by internal waves*
Alon Rimmer, Kinneret Limnological Laboratory

14:30-14:45 *Multiple equilibria and overturning variability of the Aegean-Adriatic basins*
Yael Amitai, HUJI

14:45-15:00 *Spatial distribution and temporal variability of gaseous methane in sediments of lake Kinneret*
Boris Katsnelson, Haifa U.

Coffee break

Session 6: Planetary and astrophysical GFD

15:30-15:45 *Symmetric stability of fluid planets*
Morgan O'Neill, WIS

15:45-16:00 *On the mechanism of self gravitating Rossby interfacial waves in proto-stellar accretion discs*
Ron Yellin-Bergovoy, TAU

16:00-16:15 *Jupiter and Saturn: the connection between internal structure, shape, and dynamics*
Ravit Helled, TAU

16:15-16:30 *Thermal wind balance on fluid planets: corrections due to oblateness and wind induced gravity perturbations*
Eli Galanti, WIS

Viewed from afar, earth is also an exoplanet

16:30-16:45 *Low clouds suppress Arctic air formation and amplify high-latitude continental winter warming*
Eli Tziperman, Harvard

17:00 Bus to north