



# GFD days 2017 (V)



Alexandre Yersin Department of Solar Energy and Environmental Physics (YDSEEP)  
The Swiss Institute for Dryland Environmental and Energy Research  
The Jacob Blaustein Institutes for Desert Research, Ben-Gurion University of the Negev

## Tuesday, Jan. 17, 2017

- 10:20-10:30 Opening remarks: **Boris Zaltzman**, BIDR Director, BGU
- 10:30-11:30** The Ocean Meridional Overturning Circulation: Southern Ocean Branch,  
**Keynote Lecture I** **Raffaele Ferrari**, MIT

### Session 1: Ocean circulation

- 11:30-11:45 The effect of wind-stress in the Eastern Mediterranean on deep-water formation in the Adriatic Sea, **Yael Amitai**, HUJI
- 11:45-12:00 The latitudinal dependence of the oceanic barotropic eddy kinetic energy and macroturbulence energy transport, **Rei Chemke**, WIS
- 12:00-12:15 Spectral descriptions of submesoscale surface circulation in a coastal region off the East Coast of Korea, **Sung Yong Kim**, Korea Advanced Institute of Science and Technology
- 12:15-12:30 The optimization of an NPZD ecological model using a genetic algorithm, **Hadar Berman**, HUJI

### 12:30-13:30 Lunch break

### Session 2: Tropical circulation

- 13:30-13:45 Gravity waves in a moist atmosphere: A mechanistic picture, **Nili Harnik**, TAU
- 13:45-14:00 Relation of the atmospheric energy budget to seasonal and regional aspects of the double-ITCZ bias in CMIP5 models, **Ori Adam**, HUJI
- 14:00-14:15 Accessible Environments for Diurnal-Period Waves in Simulated Tropical Cyclones, **Morgan O'Neill**, WIS
- 14:15-14:30 Westward propagating waves on the spherical earth classified by solving approximate Schrodinger equations, **Nathan Paldor**, HUJI

### Session 3: Stratospheric circulation

- 14:30-14:45 Extratropical response to the QBO in the Northern winter stratosphere, **Ian White**, HUJI
- 14:45-15:00 Radiative effects of ozone waves on the polar vortex seasonal cycle and extratropical QBO signal, **Vered Silverman**, TAU
- 15:00-15:15 Understanding recent changes in the large-scale overturning circulation of the stratosphere, **Chaim Garfinkel**, HUJI



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## Session 3: General poster session

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

- Soothing ice rifts, **Roiy Sayag**, BIDR
- Seasonal and spatial dynamics of suspended particulate matter from the coastal aquaculture plume in the south central Red Sea using in situ optical measurements, **Aya Hozumi**, HUJI
- The turbulent behavior of atmospheric baroclinic modes, **Keren Duer**, WIS
- Classification of Eastward Propagating Waves on the Spherical Earth, **Chaim Garfinkel**, HUJI
- Climate dependencies on obliquity and radiative timescales, **Ilai Guenderman**, WIS
- The decomposition of an initial Sea Surface Height perturbation to linear waves in wide and narrow channels in mid-latitudes, **Itamar Yacoby**, HUJI
- Optimal Glider dive path, **Erick Fredj**, Lev Academic Center
- Atmospheric dynamics of massive atmospheres, **Rei Chemke**, WIS

## Session 4

**16:30-17:30** The Ocean Meridional Overturning Circulation: Atlantic and Pacific Branches,  
**Keynote Lecture II** **Raffaele Ferrari**, MIT

17:30-18:00 Juno at Jupiter: the first six months, **Yohai Kaspi**, WIS

**18:45-20:30** Dinner & Lecture: "Where was the biblical Mt. Sinai?" **David Faiman**

**20:30-23:00** Night social activity

20:30-23:00 Night hike and star gazing



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## Wednesday, Jan. 18, 2017

07:45-11:30 Trip to Yeruham mountains (including breakfast)

12:00-13:00 Lunch break

**13:00-14:00** The Ocean Meridional Overturning Circulation: Role of Abyssal Mixing,  
**Keynote Lecture III** **Raffaele Ferrari**, MIT

### Session 5: Extratropical circulation

- 14:00-14:15 The effect of vertical baroclinicity concentration on the scaling of eddy kinetic energy with mean available potential energy, **Janni Yuval**, WIS
- 14:15-14:30 Using atmosphere-ocean dynamics to make more consistent and useful reconstructions of past climate, **Nathan Steiger**, LDEO
- 14:30-14:45 A midwinter minimum in the Atlantic storm track in years of more equatorward jet, **Hilla Afargan-Gerstman**, WIS
- 14:45-15:00 Enhanced poleward propagation of storms under climate change, **Talia Tamarin**, WIS

15:00-15:30 Coffee break

### Session 6: Ocean waves

- 15:30-15:45 Infra-gravity waves generation and evolution - an attempt to acquire a more wholesome understanding from theoretical, modeling and field measurements perspectives, **Yaron Toledo**, TAU
- 15:45-16:00 Effects of dual wavenumber dispersion solutions on a nonlinear monochromatic wave-current field, **David Kouskoulas**, TAU

### Session 7: Planetary and Ice

- 16:00-16:15 The sea ice floe size and thickness distribution: role in climate, a prognostic model, and emergence of power laws, **Eli Tziperman**, Harvard
- 16:15-16:30 Rotating Polygon Instability of a Swirling Free Surface Flow, the role of waves in the instability mechanism, **Ron Yellin-Bergovoy**, TAU
- 16:30-16:45 The thermal wind approximation in the case of oblate planets - implications to the Juno observations of Jupiter, **Eli Galanti**, WIS
- 16:45-17:00 Global ice flow on Europa, **Yossi Ashkenazy**, BGU

17:15 Bus to north