

**A Two-Day Centenary Celebration  
of Jule Charney and Ed Lorenz**  
Thursday, February 1, 2018 – Friday, February 2, 2018  
Massachusetts Institute of Technology

**Meeting Agenda**

Thursday, February 1st, 2018

**Celebrating the lives of Jule Charney and Ed Lorenz**

9th floor of the Green Building (54-915)

11.00am to 12.30: **Coffee, snacks and welcome**

Mingling of family, friends, colleagues, students.

Move to the Gilliland Auditorium (66-110) for afternoon proceedings

1.00 to 3.00pm

NWP and predictability.

Lennart Bengtsson: Ed Lorenz's contributions and reflections on his work at ECMWF

Mike Wallace: Lorenz and EOFs.

Shukla: Charney, Lorenz, and the Origins of the Idea of Predictability in the Midst of Chaos.

Kevin Trenberth: Ed Lorenz was no Tarzan, but he loved the outdoors and he had Jane.

Carl Wunsch: my colleagues Charney and Lorenz.

Dan Rothman: Ellen Gille and the discovery of Chaos.

Plus informal remarks, open mike

3.00 to 3.30. **Coffee**

3.30 to 5.30pm

Atmospheric Dynamics

Peter Webster: Charney's role in the development of tropical dynamics.

Ray Bates: Tropical meteorology in the field: Jule as Chief Scientist of BOMEX.

Eugenia Kalnay: Charney, my advisor.

David Strauss: Jule Charney's search for unstable steady states of the real atmosphere.

Paola Rizzoli: Meeting Jule in Venice in 1973, Ed in Cambridge in 1980.

Ray Pierrehumbert: Why Charney would have loved exoplanets.

Plus informal remarks, open mike

**Reception and dinner - 7:00pm**  
MIT Faculty Club (Samberg Conference Center)

Open Mike: vignettes, reminiscences....

# MIT on Chaos and Climate: Celebrating the Science of Jule Charney and Ed Lorenz

A Symposium Presented by  
Department of Earth, Atmospheric & Planetary Sciences  
Co-sponsored by the Lorenz Center and the Houghton Fund

2 February 2018  
MIT Wong Auditorium (E51-115)

## Agenda

---

8:30 am **Registration & Coffee**

9:00 am **Welcome & Introduction**  
Robert van der Hilst

9:10 am **Opening Keynote**  
*Basic Research—Lifeblood of Progress*  
Ernest Moniz

### **Life and Science of Charney & Lorenz**

9:30 am **Jule Charney**  
Joseph Pedlosky (WHOI)

10:00 am **Edward Lorenz**  
Kerry Emanuel (MIT)

10:30 am **Coffee Break**

### **Weather & Climate**

11:00 pm **From determinism to probability in numerical weather prediction.**  
Tim Palmer (Oxford)

11:20 am **Atmospheric Dynamics**  
Richard Lindzen (MIT)

11:40 am **Clouds and Climate**  
Allison Wing (FSU)

12:00 am **From Charney's Hypothesis to Multiple Climate Equilibria in the Sahel.**  
Elfatih Eltahir (MIT)

12:20 am **From Weather to Climate**  
Mark Cane (Columbia)

12:40 am **Carbon and Climate**  
Inez Fung (Berkeley)

1:00 pm **Lunch**

### **Beyond Earth Science**

2:00 pm **Experimental Fluid Dynamics**  
Harry Swinney (U. Texas)

2:20 pm **Non-linear Dynamics & Turbulence**  
Michael Brenner (Princeton)

- 2:40 pm **Chaos and the Solar System**  
Jack Wisdom (MIT)
- 3:00 pm **Hydrodynamic quantum analogs**  
John Bush (MIT)
- 3:20 pm *Coffee Break*
- 4:00 pm **Epidemiology**  
Lydia Bourouiba (MIT)
- 4:20 pm **Biological Population Dynamics**  
Jeff Gore (MIT)

**Perspectives**

- 4:40 pm **The Legacy of Jule Charney and Ed Lorenz**  
Brian Hoskins (Reading University)
- 5:00 pm **Panel Discussion**  
*Predictably Unpredictable: Charney, Lorenz and the High Value of Basic Research*
- 5:30 pm **Closing and Farewell**  
Robert van der Hilst

Reception to follow at the Samberg Conference Center, MIT faculty club