

The 4th Kaplan Symposium Paleoceanography and Paleoclimatology: New Approaches to Old Problems

Program

Sunday, March 4th

Morning- Field excursion

7:30 - Depart Scottish Hostel

8:00 - Depart IES (Institute Earth Sciences)

8:45 - 11:00 - **Lecture and tour to Soreq Cave by Miryam Bar-Matthews et al.** (Geological Survey of Israel)

Soreq Cave: A natural laboratory for understanding karst processes, isotopic fractionation, Eastern Mediterranean Paleoclimates, and earthquake history

12:00-13:00 - Lunch on the way to IES

Afternoon

Session I – Institute of Earth Sciences, Hall 109, Givat Ram, The Hebrew University of Jerusalem

Chair: Jonathan Erez (short introduction)

13:30 – 15:00 – **Harry Elderfield**, Cambridge, UK

- Recent developments in proxies for paleoceanography
- Glacial-interglacial cycles of ocean composition over the past 1.5 million years

15:00 – 15:15 – Coffee Break

15:15 – 16:45 – **Jess Adkins**, Caltech, USA

- What do tracers tell us about the deep ocean's role in glacial climate change?
- Radiocarbon constraints on the past ocean circulation, with an emphasis on the record from deep-sea corals

16:45-17:00 – Coffee Break

17:00-18:30 - **Jean Lynch-Stieglitz**, Georgia Tech, Atlanta, USA

- Past Changes in the Atlantic Ocean Circulation
- Ocean Circulation Response to Heinrich Events

Free Evening in Jerusalem

Monday, March 5th Ein Gedi

7:30 - Depart Scottish Hostel

8:00 - Depart IES

8:00 – 9:30 - Travel to Ein Gedi by tour bus, registration at Arugot Hall, check-in to rooms after 15:00.

Session II (chair: Yigal Erel, Arugot Hall)

10:00-11:30 - **Larry Edwards**, U. Minnesota, USA

- A century of improvements in Th-230 dating methods with recent applications to cave climate records
- Monsoons and meltdowns: the story from Chinese cave climate records

11:30-11:45 Coffee Break

11:45-13:15 - **Gerard Roe**, U. Washington, USA

- Atmospheric circulation over Asia and its impact on paleoclimatic records.
- What do glaciers tell us about climate variability and climate change?

13:15-14:30 Lunch

Session III (chair: Boaz Luz, Arugot)

14:30-16:00 - **Yair Rosenthal**, Rutgers, USA

- Ocean-atmosphere interactions: a view from the deep ocean
- Climate variability in the western equatorial Pacific on different time scales: regional and local implications.

16:00-16:15 Coffee Break

16:15-17:45 - **Jeff Severinghaus**, UCSD, USA

- Ice core gas records, past changes in the Dole Effect, and abrupt climate change
- Krypton and xenon from ice cores imply two degrees of mean ocean warming during Heinrich Stadial 1

18:00-19:30 Dinner

20:00-23:00 - **Poster Session & Drinks (Amichai Hall)**

Tuesday, March 6th

7:00 – 8:00 Breakfast

Session IV (chair: Hezi Gildor, Arugot Hall)

8:00-9:30 - **Robbie Toggweiler**, GFDL, Princeton, USA

- Organization of the Ocean's Overturning Circulation
- Re-organization of the Ocean's Overturning during Glacial-Interglacial Transitions

9:30-9:45 Coffee Break

9:45-11:15 - **Andy Ridgwell**, Bristol, UK

- The geological record of ocean acidification
- Causes and consequences of massive CO₂ release at the Paleocene-Eocene boundary

11:15-11:30 Coffee Break

11:30-12:30 - **Meir Abelson**, Geological Survey of Israel

- The meridional overturning circulation at the Eocene-Oligocene boundary – Possible causes and consequences

12:30-13:30 - Lunch

13:30-14:30 - Tour to Ein Gedi botanical gardens and view of Arugot delta

Session V (chair: Yehoshua Kolodny, Arugot)

14:30-16:00 - **Achim Brauer**, GFZ, Potsdam, Germany

- Tracing past climate changes in annually laminated lake sediments
- The last interglacial in the central Mediterranean: evidence from Lago Grande di Mointicchio

16:00-16:15 –Coffee Break

16:15-17:15 - **Ariel Anbar** ASU, USA

- Paleoredox proxies

17:15-18:15 - **Yochanan Kushnir** LDEO, USA

- North Atlantic Multidecadal Variability: looking back from present-day climate analysis and modeling into Holocene climate variability

18:15-19:30 - Dinner

20:00-23:00 - **Poster Session & Drinks (Amichai Hall)**

Wednesday, March 7th

7:00 – 8:30 - Breakfast

8:30- 9:00 - Check-out

Session VI (chair: Yehouda Enzel, Arugot)

9:00-10:30 - **Steve Goldstein**, LDEO, USA

- Tracing continental inputs through the oceans.
- New Perspectives on the history of Lake Lisan (the last ice age Dead Sea)

10:30-10:45 - Coffee Break

10:45-12:15 - **Eelco Rohling**, Southampton, UK

- Mediterranean and Red Sea connections to global paleoclimate scenarios
- Sea level chronology and the rapidity of ice-volume changes in climate change

12:15-13:30 Lunch

14:00-14:45 - **Jonathan Erez, Yehouda Enzel and Hezi Gildor,**

- Open discussion and summary of the symposium

Depart Ein Gedi

15:00 – **Short lecture followed by a guided field trip to the Dead Sea** by **Moti Stein** (Geological Survey of Israel):

- The evolution and paleo-environments of Late Neogene and Quaternary water-bodies in the Dead Sea basin

~19:30 - Arrival back in Jerusalem, free evening