Friday, May 3 and Saturday, May 4, 2019

ORIGIN AND EVOLUTION OF

PLANET EARTH

FUTURE DIRECTIONS IN
EARTH AND PLANETARY SCIENCES

Yale Department of Geology & Geophysics

COVER ART: CASEY REED

earth.yale.edu/origin-and-evolution-planet-earth

Friday, May 3 and Saturday, May 4, 2019
FRIDAY MAY 3

8:00 – 8:50 AM Light Breakfast

8:50 – 9:00 AM Welcome: David Bercovici
    Chair, Geology & Geophysics
    Yale University

9:00 – 10:00 AM Alexander Halliday
    Columbia University
    The Origin of the Earth and Moon

10:00 – 11:00 AM Seth Jacobson
    Northwestern University
    A Giant Impact Origin for the Earth-Venus Dichotomy

11:00 – 11:30 AM Coffee Break

11:30 AM – 12:30 PM Steven Desch
    Arizona State University
    Consequences of Terrestrial Embryo Formation During the Lifetime of The Protoplanetary Disk

12:30 – 1:30 PM Lunch

1:30 – 2:30 PM Konstantin Batygin
    California Institute of Technology
    The Role of Giant Planet Migration in Terrestrial Planet Formation

2:30 – 3:30 PM Juan Lora
    Yale University
    Atmospheric Evolution, Stability, and Climate: Lessons from an Outer Solar System Terrestrial Body

3:30 – 4:00 PM Coffee Break

4:00 – 5:00 PM Gregory Laughlin
    Yale University
    The Antipodal Effect—Geophysical Insights from the Topographic Power Spectra of Terrestrial Worlds

5:00 – 5:30 PM Open Discussion: Debra Fischer
    Yale University

5:30 PM Reception

SATURDAY MAY 4

8:30 – 9:00 AM Light Breakfast

9:00 – 10:00 AM Conel Alexander
    Carnegie Institution of Washington
    Small Bodies from the Inner and Outer Solar System as Likely Sources of Volatiles for the Terrestrial Planets

10:00 – 11:00 AM Adam Sarafian
    Corning Inc
    Observational and Experimental Evidence of Hydrous Accretion to the Inner Planets

11:00 – 11:30 AM Coffee Break

11:30 AM – 12:30 PM Sujoy Mukhopadhyay
    University of California, Davis
    Volatile Accretion and Loss on a Growing Earth

12:30 – 1:30 PM Lunch

1:30 – 2:30 PM Marc Hirschman
    University of Minnesota
    Origin and Processing of Earth’s Major Volatiles (H,C,N,S), from Primitive Materials to Planetary Differentiation

2:30 – 3:30 PM Keiko Hamano
    Tokyo Institute of Technology
    Formation of Atmosphere and Oceans on the Early Earth

3:30 – 4:00 PM Coffee Break

4:00 – 5:00 PM Nikku Madhusudhan
    University of Cambridge
    Chemical Characterization of Extrasolar Planets

5:00 – 5:30 PM Open Discussion: Shun-ichiro Karato
    Yale University

5:30 PM Closing Remarks: Shun-ichiro Karato
    Yale University

5:40 PM Reception