

2022 Northeast Geobiology Symposium
April 16th, 2022
Massachusetts Institute of Technology, Cambridge, MA

Location: <http://whereis.mit.edu/?go=32>

8:00 – 9:00 am Arrive & breakfast [Vest Student Streets]

9:00 – 9:10 am Welcome & Land Acknowledgement [32-123]

9:10 – 10:40 am **Session 1: Isotopes & Friends** [32-123]

Moderated by Ellen Lalk

- Event, episodes, or endurance? Reframing the geochemical record of atmospheric oxygenation – Benjamin Uveges
- Combinatorial and rate effects on the multiply-substituted isotope signatures in methane during biological production and consumption – Jiawen Li
- Carbon isotopic signatures of microbial trophic levels: insights from microbial mats – Ana Gonzalez-Nayeck
- Rise in the 15N-to-14N Ratio of otolith-bound organic matter associated with late cretaceous cooling – Crystal Rao
- Experimental investigation of amino acid binding as a mechanism for fractionating metal stable isotopes – Corday Selden

10:40 – 11:00 am Coffee Break [Vest Student Streets]

11:00 – 12:00 pm **Session 2: Evolution, Phylogeny, and Omics** [32-123]

Moderated by Jack Payette

- Distribution and phylogeny of denitrification genes within metagenomes and genomes from oxygen deficient zones – Irene Zhang
- Chimeric inheritance and crown-group acquisitions of carbon fixation genes within Chlorobiales – Maddie Paoletti
- Branching archaeocyathids as ecosystem engineers during the Cambrian radiation – Ryan Manzik

12:00 - 12:45 pm Lunch [Forbes Cafe & outside depending on weather]

1:00 - 2:30 pm **Poster Session #1** [Vest Student Streets]

2:30 - 3:40 pm **Session 3: The Fossil Record & Diagenetic Processes** [32-123]

Moderated by Fatima Hussain

- Investigating a proposed algal origin for Precambrian sponge steranes – Juliana Drozd
- Moldic preservation of microbial mats and animal tissues in silica-rich solutions: implications for the preservation of the Ediacara Biota – Silvina Slagter
- The evolution of early Cambrian shallow marine environments: Refining the lower Cambrian stratigraphy of Esmeralda County, NV – Mary Lonsdale
- Calibrating the Neoproterozoic Hecla Hoek succession, Svalbard, Norway – Alexie Millikin

3:40 - 4:00 pm Coffee and Snacks Break [Vest Student Streets]

4:00 - 5:30 pm **Poster session # 2** [Vest Student Streets]

5:30 - 7:30 pm Dinner Reception [Forbes Cafe & outside depending on weather]