



## IGPP Virtual Seminar Series

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COMPRES Distinguished Lecturer

### Core formation on Earth and Mars

**Date: Tuesday, Jun 2, 2020**

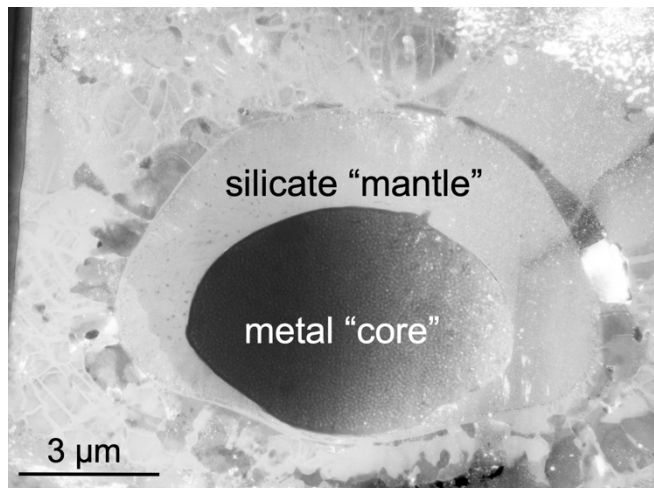
**Time: 12:30 pm, Pacific Time**

**Host: Tianze Liu**

**Register to attend:**

<https://ucsd.zoom.us/meeting/register/tJlpc-mhqj8vG9WkAnM-f-oLlcDlvjwkg0X>

Because this meeting will be recorded, please make sure that you are comfortable with it before registering.



The terrestrial planets accreted in a series of increasingly large and violent impacts, which caused large-scale melting of the mantle. This allowed the core to segregate during accretion, undergoing high pressure, high temperature metal–silicate partitioning reactions that set the modern-day compositions of the core and mantle. This talk will present a model of Earth’s core formation, which builds upon a suite of *N*-body accretion simulations and experimental partitioning data, with applications to the composition of Earth’s core and the core formation process. Modeling of the Hf–W isotopic system will then be discussed, which can place tighter constraints on the core formation process in the Earth. Finally, a model of Martian core formation will be presented, which can be used to compare and contrast this process on the two planets.