

**Title: Nucleosynthetic heterogeneity in the early solar system:
insights from Nd isotopes**

Abstract:

Isotopic variability from heterogeneous distribution of presolar dust in the solar protoplanetary disk is now well-established for a number of elements. Yet, significant uncertainty exists regarding the inventory of presolar dust populations that were initially present in the protosolar molecular cloud and their eventual aggregation into planets and planetesimals. In this talk, I will review what high precision Nd isotope measurements of meteorites and their components tell us about the diversity of nucleosynthetic components that contributed material to the nascent solar system and how they resulted in an apparent bifurcation of solar system materials into carbonaceous and non-carbonaceous suites.