

The title of my colloquium will be:

Did a Low-Mass Supernova Trigger the Formation of the Solar System? Clues from Stable Isotopes and Be-10

Abstract:

We argue that the hypothesis of a single core-collapse supernova triggering the formation of our solar system is consistent with the forensic evidence from short-lived radionuclides, preserved as isotopic anomalies. We find that the supernova had a low mass and exploded about 1 Myr prior to the time these radionuclides were incorporated in solar-system solids. Key to this conclusion is the demonstration that the short-lived Be-10 can be synthesized in supernovae by neutrino interactions and that its yield stays high as the supernova mass decreases, in contrast to major stable isotopes and other short-lived radionuclides.

Best,

Yong