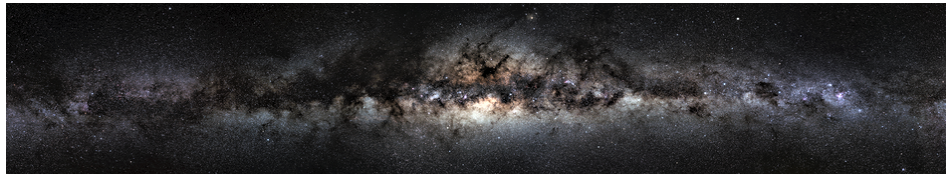


Dark Sectors of Astroparticle Physics (AstroDark-2021): Axions, Neutrinos, Black Holes and Gravitational Waves



Contribution ID: 50

Type: Oral

Long Time Simulation Framework of Supernova Neutrino

Tuesday, 7 December 2021 12:50 (18 minutes)

Heavy stars can explode at their ends. This phenomenon is called supernova. Supernovae are very complicated systems so we need high cost computation to understand them. Supernovae release a lot of neutrinos at their explosion. If a supernova happens in our galaxy, a few thousands events could be detected with neutrino detectors in the world for about more than 10 seconds. We need long time simulations, which are longer than 10 seconds, to compare observation and theory. I will present our simulation framework for long time supernova simulation and recent development to address black hole formation.

Primary author: MORI, Masamitsu (University of Tokyo)

Presenter: MORI, Masamitsu (University of Tokyo)

Session Classification: Parallel 2: Neutrinos