Reading Log

Xin Cheng Liu

Week 1 - 12/11/2025

Paleodetectors for Galactic supernova neutrinos, 2020 - Cited by 36

A Supernova at 50 pc: Effects on the Earth's Atmosphere and Biota, 2017 - Cited by 75

The lunar surface as a recorder of astrophysical processes, 2021 - Cited by 32

- Review on using the lunar surface as a recorder for solar and galactic cosmic rays
- Preservation of records:
  - eruption of low-viscosity basaltic lava flow
  - deposition of pyroclastic deposits around sites of explosive volcanism
  - emplacement of impact crater ejecta blankets
- Locating and accessing records in subsurface layers

Week 2 - 19/11/2025

Lunar sourcebook: A user's guide to the Moon, 1991 - Cited by 2610

- Chapter 3: Galactic Cosmic Rays
  - GCR particles with energies below 1015 eV come from our galaxy, and their flux at the Earth is very isotropic (Simpson, 1983)
- Chapter 5: Lunar Minerals

Cosmic-ray-produced noble gases in meteorites, 2002 - Cited by 242

- THE COSMIC RAY FLUX IN TIME page 159

Nuclear tracks: A success story of the 20th century, 2001 - Cited by 63

- Review on how nuclear tracks have been used in various fields and potential future studies

Cosmic-Ray Record in Solar System Matter, 1983 - Cited by 262

- The heliosphere is one of three screens, together with the Earth's magnetic field and the Earth's atmosphere, that modulate the cosmic ray flux at the surface of the Earth.
- The loss of heliospheric modulation would lead to flux increases of 10–100× at energies of 10–100 MeV at the top of the terrestrial magnetosphere

The Local Interstellar Medium, 2006 - Cited by 33

- If we look at a very nearby star, in the direction of the historical solar trajectory (Dehnen & Binney 1998), the observed LISM absorption should provide information on the nature of the LISM that the Sun encountered only a short time ago.
- The Sun's ISM history could then be converted into a cosmic ray flux history, based on the heliospheric response to the historical interstellar density profile.

Duration of Sensitive Period for Track Recording in Mica, 1968 - Cited by 24

The observation in mica of tracks of charged particles from neutrino interactions, 1967 - Cited by 30

Identification and selection criteria for charged lepton tracks in mica, 1988 - Cited by 48

Week 3 - 26/11/2025

Week 4 - 03/12/2025

Week 5 - 10/12/2025

Week 6 - 17/12/2025