



EINLADUNG
zum
VERA - SEMINAR
von

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**From supernova to terrestrial dirt: a journey
between astrophysics, biology, and geophysics**

Search for ^{60}Fe from supernova explosions in terrestrial materials requires careful selection of sites where extraterrestrial Fe is continuously accumulated with minimum dilution by terrestrial inputs. ^{60}Fe atoms have been found in layers of a deep-sea ferromanganese crust dated 1.8-2.8 Myr BP [1], while no ^{60}Fe has been found in deep-sea sediment from the North Atlantic [2]. This talk illustrates our current understanding of the global Fe-cycle on Earth and possible ^{60}Fe pathways to stable sedimentary records, with special focus on the selection of Equatorial Pacific pelagic carbonates, where the sedimentary Fe cycle is significantly influenced by the iron uptake of so-called magnetotactic bacteria. These carbonates are currently investigated for their ^{60}Fe content.

[1] Knie et al., Phys. Rev. Lett. 93, 171103 (2004).

[2] Fitoussi et al., Phys. Rev. Lett. 101, 121101 (2008).

Donnerstag, 9. Oktober 2014, 16:30 Uhr
1090 Wien, Währinger Str. 17, "Kavalierstrakt",
1. Stock, Victor-Franz-Hess-Hörsaal

R. Golser

W. Kutschera

E.M. Wild