



# CERN Colloquium

SPEAKER: ELLIS, J. (University of London (GB))  
TITLE: **Radioactive Iron Rain: Evidence of a Nearby Supernova Explosion**  
DATE: Thu 30/06/2016 16:30  
PLACE: 503-1-001 - Council Chamber

## ABSTRACT

A very close supernova explosion could have caused a mass extinction of life in Earth. In 1996, Brian Fields, the late Dave Schramm and the speaker proposed looking for unstable isotopes such as Iron 60 that could have been deposited by a recent nearby supernova explosion. A group from the Technical University of Munich has discovered Iron 60 in deep-ocean sediments and ferromanganese crusts due to one or more supernovae that exploded  $O(100)$  parsecs away about 2.5 million years ago. These results have recently been confirmed by a group from the Australian National University, and the Munich group has also discovered supernova Iron 60 in lunar rock samples. This talk will discuss the interpretation of these results in terms of supernova models, and the possible implications for life on Earth.