

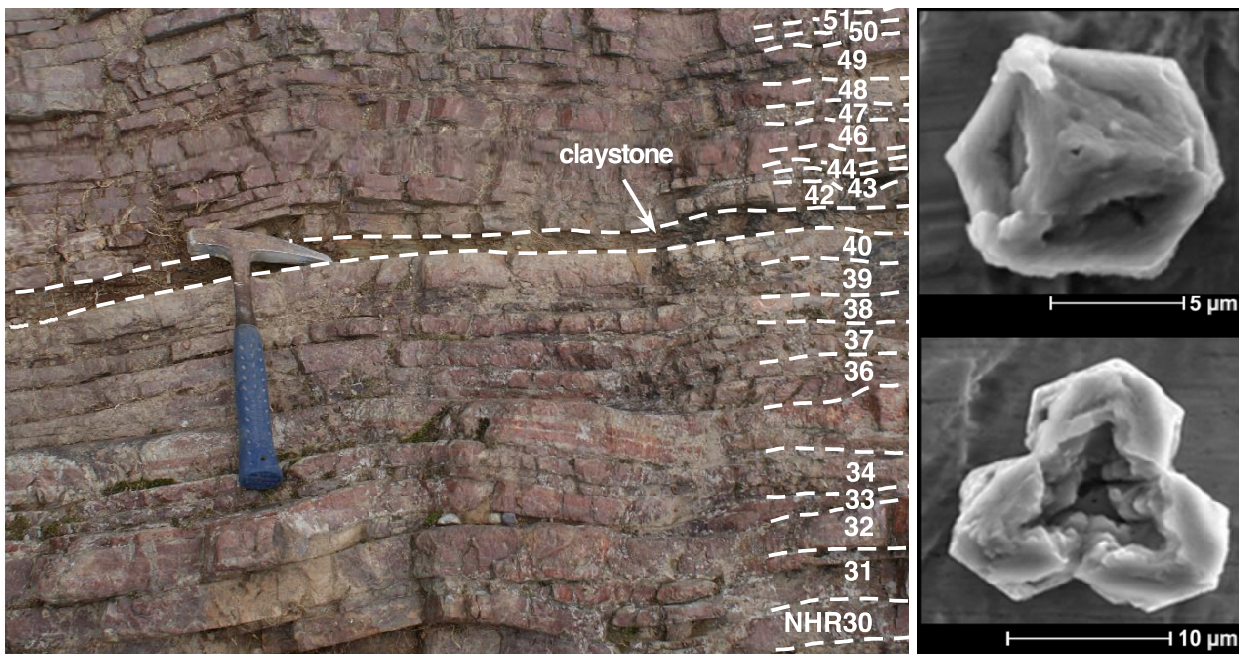
Seminario

Geochemical characterization of extraterrestrial impact events recorded in sedimentary rocks

Giovedì, 4 Novembre – ore 16:30 Aula Arduino

Relatore: **Dr. Honami Sato**

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Abstract

More than three decades have passed since the discovery of anomalies in the abundance of platinum group elements (PGEs: Os, Ir, Ru, Rh, Pt, Pd) across the sections of Cretaceous-Paleogene (K-Pg) strata from Gubbio (Italy) and Caravaca (Spain), which have been attributed to a bolide impact. This remains one of the most significant findings in the field of Earth science. After the discovery, the PGE anomaly at the K-Pg boundary has been confirmed from more than 120 sites. Bolide impacts are not limited to the K-Pg boundary, but occurred throughout Earth's history. Pelagic deep-sea sediments are repositories of information regarding impact events over geologic time, because they preserve long-duration continuous records with low sedimentation rates. This seminar introduces geochemical studies reporting evidence for a large impact event in the Upper Triassic. Geochemical data on PGEs and radiogenic osmium (Os) isotope ratios in the sedimentary rocks provide information regarding the type and size of impactor.

Proponente: **Manuel Rigo**