Novel Approaches in Geochronology: Quantifying Geomorphological Processes and Landscape Dynamics

GM2.5 Friday 08 May, 08:30–10:15 CET

(https://meetingorganizer.copernicus.org/EGU2020/displays/37492)

08:30 – 08:35	**Sign in, welcome and brief guidance to the session**
08:35 – 08:42	**Gerald Raab** Surface denudation and soil erosion over 300 ka at the Otago upland (New Zealand) using 10Be and 239+240Pu
08:42 – 08:49	**Ramona A.A. Schneider** Landscape evolution of the southeastern Tibetan Plateau – Temporal and spatial relationships between glacial and fluvial landforms
08:49 – 08:56	**Magali Rizza** How to reconcile OSL and TCN data: the potential of high-resolution sampling on the Choushui Tableland (West Central Taiwan)
08:56 – 08:59	**Nathan Brown** Interpreting erosion frequency and magnitude from luminescence profiles in boulders
08:59 – 09:06	**Dominik Brill** OSL rock surface exposure dating as a novel approach for reconstructing transport histories of coastal boulders over decadal to centennial timescales
09:06 – 09:13	**Michael Meyer** Direct dating of lithic surface artefacts using luminescence and application potential in geomorphology
09:13 – 09:20	**Andrea Madella** How many grains do we need for tracer thermochronology?
09:20 – 09:27	**Vincent Godard** Temporal evolution of surface processes inferred from cosmogenic nuclides in a slow erosion setting, insights from the Sera do Cipo range, Brazil
09:27 – 09:34	**Valeria Zavala (presented by Sébastien Carretier)** Along-stream variations in valley flank erosion rates measured using 10Be concentrations in colluvial deposits from Atacama canyons: implications for valley widening
09:34 – 09:41	**Jamie Glass** Spatial variation of erosion rates and passive margin escarpment embayment from New England, NSW and Bellenden Ker, Queensland, Australia: an analysis using GIS and in-situ 10Be basin-wide cosmogenic nuclides
09:41 – 09:48	**Joanne Elkadi** Quantifying post-glacial erosion at the Gorner glacier, Switzerland, using OSL and 10Be surface exposure dating.
09:48 – 09:55	**Jürgen Mey** Illuminating the speed of sand – quantifying sediment transport using optically stimulated luminescence
09:55 – 09:58	**Laurent Schmitt, Gilles Rixhon** Using the portable luminescence reader to assess the historical lateral mobility of river channels: preliminary promising results
09:58 – 10:05	**Lucas Ageby** Exploring the application of IRSL rock surface exposure dating of archaeological stone structures in Val di Sole, Italy
10:05 – 10:12	**Stéphane Schwartz** Contribution of magnetite (U-Th-Sm)/He thermometer to quantify the final exhumation of high-pressure ultramafic rocks : example of the Rocher Blanc ophiolite (western Alps)
10:12 – 10:15 (until chat closes)	**Concluding remarks, open questions, discussion**