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# Western Regional Group

## The Greatest Power Couple in Modern Geosciences - Structural Geology Meets Geochronology

*Dr Eddie Dempsey, University of Hull*

Tuesday 15<sup>th</sup> June 2021

Zoom Talk: opens at 6:15pm for 6:30pm Start

The Western Regional Group is pleased to welcome Dr Eddie Dempsey.

This talk will discuss how recent advances in geochronology and petrochronology have opened up the discipline to the world of structural geology. I will discuss several case studies from the Archean through to modern day examples of dating predominantly brittle structures and the inferred stress field that give rise to them.

This talk will also focus on field data collection, stress inversion analysis, the use of Re-Os dating of sulfide minerals and in-situ U-Pb dating of Calcite, Titanite, Zircon, Rutile and Epidote. I will also touch on how structural geologists can make use of other chronometers such as Lu-Hf, Sm-Nd, K-Ar, K-Ca, Ar-Ar and Rb-Sr.



Dr Eddie Dempsey is a lecturer in Structural Geology at the University of Hull in the UK. Eddie uses evidence of deformation in the Earth's crust such as faults, folds and fractures to reconstruct tectonic environments and changes to regional stress fields through time. Eddie also uses U-Pb and Re-Os isotope geochronology to accurately establish the timing of events such as fault zone development and ancient earthquakes.

**Zoom Details:** When: 15<sup>th</sup> June 2021, 06:30 PM London

[https://us02web.zoom.us/meeting/register/tZUvdu6hqjksHN3R0Bj5Ak\\_S6THZODEJbp0Q](https://us02web.zoom.us/meeting/register/tZUvdu6hqjksHN3R0Bj5Ak_S6THZODEJbp0Q)

Entry is free, non-members welcome.

**e-mail**

Get in touch

[westernregionalgroup@gmail.com](mailto:westernregionalgroup@gmail.com)

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Geological Society, Burlington House, Piccadilly, London, W1J 0BG

Tel: +44 (0)20 7434 9944 Fax: +44 (0)20 7439 8975 Email: [enquiries@geolsoc.org.uk](mailto:enquiries@geolsoc.org.uk) Web: [www.geolsoc.org.uk](http://www.geolsoc.org.uk)

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