iCRAG PhD HC 4.2 PhD8

Structural and kinematic analysis of the Celtic Sea basins - exploring links between evolution and traps

The Celtic Sea basins, lying off the south coast of Ireland, comprise a series of ENE trending, elongate basins that extend from the St George's Channel Basin, offshore Wexford in the east, to the Fastnet Basin in the west. The basins are of Triassic through to Cenozoic age. Initial basin development was driven by Permo-Triassic extensional collapse of the Variscan Orogen with later Jurassic through to Cretaceous extension related to Atlantic opening. The Celtic Sea basins have been subject to several periods of inversion most notably early Cenozoic inversion related to N-S directed Alpine compression. This inversion has had a major impact on hydrocarbon occurrence and prospectivity within the basins.

This PhD, through detailed seismic mapping and analysis of faults and their displacements, will provide an improved understanding of the evolution of the fault systems that bound the Celtic Sea basins. Major themes of the research will be 1) the control of inherited structure on basin morphology, evolution and reactivation, 2) the spatial and temporal interactions between faults and between basins and 3) structural controls on hydrocarbon trap charge and leakage.

Applications are invited from students with a strong interest in structural geology and basin development. Candidates must have a BSc in a relevant geoscience area. The successful candidate will join a large applied geoscience research group in the UCD School of Geological Sciences at University College Dublin (www.ucd.ie/geology/). The position is fully funded for four years with a scholarship of €18K/year.

To apply send a full CV, contact details for 2 academic referees and a letter of motivation. Applications or requests for further information should be sent to Conrad Childs at conrad.childs@ucd.ie. The deadline for receipt of applications is **30th April**.

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