

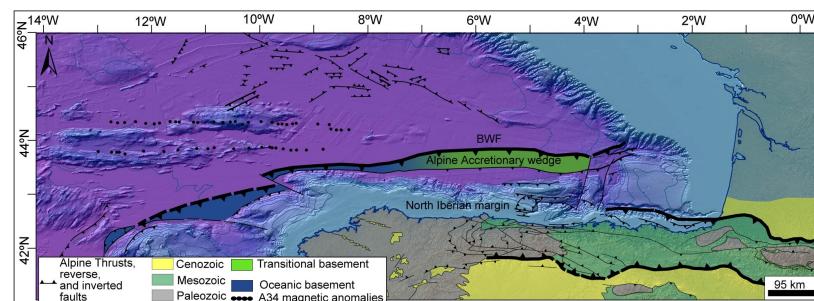
EARTH SYSTEMS SEMINARS



A UNIQUE FOSSILIZED ONSET OF CONVERGENT TECTONICS IN THE ATLANTIC OCEAN

WHAT'S THIS ABOUT?

The North Iberian margin preserves a unique fossilized Alpine convergent system in its initial underthrusting phase affecting both oceanic and transitional basement along the magma-poor margins of the southern North Atlantic. Thus, it represents a unique setting for gaining knowledge on the process of localisation of deformation, which precedes and/or accompanies subduction initiation. This work relies on the interpretation of 2D seismic reflection profiles to identify imaged tectonic structures resulting from underthrusting along the North Iberian margin. Our observations show a megathrust separating an incipiently subducted oceanic plate from an accretionary prism on the overriding plate, supporting the interpretation of incipient arrested subduction. However, we describe overthrusting and basement thrusting and folding as types of contractional deformation affecting the transitional basement. We integrate our structural observations with geodynamic and geophysical models to discuss the role of different transitional basement types, structures, and thicknesses in localising or distributing contractional deformation.



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April 10

Wednesday: 13:00

PASS: SES2024IDL

<https://videoconf-collibri.zoom.us/j/89018419156>



or IDL room
1.1.37 (C1)