



## **Characterizing structures on borehole images and logging data of the Nankai trough accretionary prism: new insights**

Maria Jose Jurado

Instituto de Ciencias de la Tierra CSIC, Barcelona, Geophysics, Barcelona, Spain (mjjurado@ija.csic.es)

IODP has extensively used the D/V Chikyu to drill the Kumano portion of the Nankai Trough, including two well sites within the Kumano Basin. IODP Expeditions 338 and 348 drilled deep into the inner accretionary prism south of the Kii Peninsula collecting a suite of LWD data, including natural gamma ray, electrical resistivity logs and borehole images, suitable to characterize structures (fractures and faults) inside the accretionary prism.

Structural interpretation and analysis of logging-while-drilling data in the deep inner prism revealed intense deformation of a generally homogenous lithology characterized by bedding that dips steeply ( $60-90^\circ$ ) to the NW, intersected by faults and fractures. Multiple phases of deformation are characterized.

IODP Expedition borehole images and LWD data acquired in the last decade in previous and results of NantroSEIZE IODP Expeditions (314, 319) were also analyzed to investigate the internal geometries and structures of the Nankai Trough accretionary prism.

This study focused mainly on the characterization of the different types of structures and their specific position within the accretionary prism structures. New structural constraints and methodologies as well as a new approach to the characterization of study of active structures inside the prism will be presented.