



## **The easternmost segment of the Mesozoic Iberia-Eurasia divergent plate boundary**

Stefano Tavani (1), Carlo Bertok (2), Pablo Granado (3,4), Josep A. Muñoz (3,4)

(1) Università Federico II, Dipartimento di Scienze della Terra, Napoli, Italy (stefano.tavani@unina.it), (2) Dipartimento di Scienze della Terra, Università degli Studi di Torino, Torino, Italy (carlo.bertok@unito.it), (3) Departament de Dinàmica de la Terra i de l'Oceà, Universitat de Barcelona, Barcelona, Spain, (4) Institut de Recerca Geomodels, Universitat de Barcelona, Barcelona, Spain

In this contribution we provide a reappraisal of the Cretaceous basins of the central and eastern portion of the Mesozoic Iberia-Eurasia plate boundary, from the easternmost portion of Iberia to the SE France Basin and Western Alps fold-and-thrust belt. The timing, segmentation and kinematics of these basins are reviewed and compared with those of the Bay of Biscay-Pyrenean rift, in order to define timing, lateral extent, and kinematics of the eastern termination of the Mesozoic Iberia-Eurasia plate boundary. Direction of extension, timing, and style of lateral segmentation in the Cretaceous basins located to the east of the Pyrenees are identical to those recorded by coeval basins in the Bay of Biscay - Pyrenean rift system. NNE-SSW oriented extension is recorded in WNW-ESE elongated Late Jurassic to mid-Cretaceous basins of both areas, being all the basins segmented by NNE-SSW trending transfer zones. Reviewed data about the mid-Cretaceous tectonics of the area comprised between the easternmost portion of Iberia and the Western Alps indicate that: (i) extensional structures of south France and of the Briançonnais domain of the Western Alps were forming the easternmost portion of the segmented and laterally terminating Bay of Biscay-Pyrenean rift system; (ii) this easternmost portion of the Iberia-Eurasia plate boundary was characterised by a divergent Early to mid-Cretaceous kinematics.