

Paper Number: 2451

## **The Lower-Middle Pleistocene boundary at the Montalbano Jonico section (Southern Italy)**

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The Montalbano Jonico section is a candidate to host the Global Boundary Stratotype Section and Point (GSSP) of the Middle Pleistocene Subseries. We present new paleontological, geochemical, and geochronological data, which provide useful constraints to correlate the section at global-scale. An accurate climatostratigraphic framework for Marine Isotope Stage (MIS) 19 was reconstructed based on high resolution (up to 200 years) benthic and planktonic oxygen isotopes, on calcareous plankton (foraminifera and nannofossils) and pollen assemblages. Cosmogenic <sup>10</sup>Be flux was analyzed for the first time on high resolution sampling through the MIS 20-18 interval, improving the data set on its pattern across MIS 19, and furnishing valuable information to estimate the significance of the magnetic signal at the Matuyama-Brunhes boundary and its role as the “primary criterion” for the Middle Pleistocene GSSP definition.

