



## **Paleomagnetic data from the Pignola 2 section (Southern Apennines, Italy) and the Dibona section (Dolomites, Italy): a contribution to the Carnian magnetostratigraphy**

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New magnetostratigraphic data for the Carnian have been obtained from the Pignola 2 section (Southern Apennines, Italy) and the Dibona section (Dolomites, Italy), obtaining 6 and 9 magnetozones respectively, both calibrated with conodonts and pollens. These new data cover the Julian/Tuvalian interval (Carnian) that is currently lacking of a clear magnetostratigraphic record. The Pignola 2 and Dibona sections have been compared with the magnetostratigraphy of other Tethyan sections from literature (e.g. Pizzo Mondello, Silická Brezová, Bolücektasi Tepe), integrating the magnetostratigraphy of the Carnian around the Julian/Tuvalian boundary. Considering also the sections of Mayerling and Prati di Stuares, containing the Ladinian/Carnian boundary, we obtained a continuous magnetostratigraphy for the Carnian Stage. Sections like Pizzo Mondello and Silická Brezová span from the late Carnian to the late Norian and have been correlated with Norian/Rhaetian sections up to the Hettangian base, like Pignola-Abriola, Steinbergkogel, Brumano-Italcementi Quarry. This sequence of correlations reveals a continuous magnetostratigraphic record along the whole Late Triassic valid for the Tethyan realm. The radiometric age from the Pignola 2 section ( $230.91 \pm 0.33$  Ma from the “green clay-radiolaritic horizon”) and the recent proposal for the age of the Rhaetian base (205.7 Ma from the Pignola-Abriola section, obtained by means of correlation with the Newark Astrochronological Polarity Time Scale and coherent with recent radiometric ages around the Norian/Rhaetian boundary), constrain our Late Triassic Tethyan composite magnetostratigraphy to a well-defined time interval, therefore improving current versions of the Triassic time scale.