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Displacement field and deformation pattern from GPS data in the central and southern Italian area

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We present the displacement field and deformation pattern of the central and southern Italian area, obtained from the analysis of continuous GPS observations collected between 2001 and 2005. The data of 50 stations distributed along the Apennine chain and surrounding regions have been analysed using GAMIT software, to obtain daily loosely constrained solutions of stations coordinates. In order to estimate station positions in a global reference frame (ITRF2000) we have used a set of 5 stations, regionally distributed, as reference sites. The deformation pattern in the central and southern Italy inferred from the geodetic velocity filed is presented, and compared with geophysical - geological data and numerical simulations of tectonic models.