



## **Old italian reference systems and their applications**

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The history of geodetic systems used in Italy from the end of the XIX century to the beginning of the XXth century is complex and, in the past, this has led some researcher to misinterpretations. For this reason an explanation of geodetic systems used in Italy in this period is reported in this paper.

Towards the end of the XIXth century, the " Ufficio Tecnico del Corpo di Stato Maggiore" (first nucleus of the future IGM) was entrusted to unify the geodetic reference systems of the Italian pre-union states to produce a unique Italian Datum for the whole national territory.

At the same time, the "Ufficio del Catasto" (National Cadastre Office), for its purposes, began the production of a cartography in projection Cassini-Soldner representing only the thematic layer of its interest: the delimitations of properties.

Although officially the Datums used in those years are the same both for cadastre and IGM (Genoa, Monte Mario, Castanea delle Furie), in many cases temporary orientations were used on cadastral maps and the values of first, second and third order vertexes do not coincide with those definitive ones used by the IGM.

This ambiguity led frequently to misinterpretation and errors to georeferenciation of present and historic Italian cartography