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## GPR prospecting in the archaeological site of Cavallino, Lecce, Italy

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In this abstract we propose the results of GPR measurements [1-2] performed in a site of cultural interest. In particular, the measurements were performed in a rectangular area inside the Messapic archaeological ancient settlement of Cavallino, close to Lecce (southern Italy) with a RIS-Hi model GPR system manufactured by IDSGeoradar s.r.l. and belonging to the Institute for the Electromagnetic Sensing of the Environment IREA-CNR. The data processing was performed according to a classical sequence of steps provided by zero timing, background removal, gain vs. depth, 1D filtering and time domain migration [3]. Afterwards, slicing was performed too and the results were georeferenced in QGIS thanks to the coordinatives of the four vertex of the rectangular area. The results indicate that there are some possible Messapic remains in the investigated area and suggest somehow the most promising point for a future localized excavation. Future development will regard further processing of the data with an inverse scattering [4] algorithm accompanied with a shifting zoom procedure, that will make it possible to apply the inverse scattering approach to an electrically large domain [5].

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