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3D gravity inversion at Campi Flegrei: first results

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The definitions of the actual structures in volcanic areas has a key importance becuase may help to clarify the eruptive history and because can define quiscent state of a volcano which is necessary for any monitoring. This is specially true for Campi Flegrei which is a densely inhabited area near the town of Naples, Southern Italy. We investigated the 3D shallow structure of Campi Flegrei inverting gravity data collected during previous surveys. The main characteristic structure we find is a caldera the location and shape of which is fairly consistent with the results of SERAPIS experiment, a tomographic seismic survey carried on in 2001 in Campi Flegrei. Even if preliminary, our results indicates that a more detailed study can be carried on to retrieve more details of the structure of the caldera.