



Gravity campaign in the Shirpan Plovdiv area south of Bulgaria

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In south Bulgaria destructive earthquake (M 6.8 and M 7.0) occurred on April 14 and April 18 1928 near the city of Plovdiv. These earthquake are among the most important that occurred in Europe in the 20th century. The first shock occurred on a south dipping fault and accommodates a uniform slip of 0.7m of displacement. The second was situated on a north dipping fault and accommodate 75 % of the seismic moment and a maximum slip of 2.6 m. In the spring 2004 a gravity campaign has been carried out in this area. The purpose of the gravity measurement was to better understand the tectonic setting of the graben. The campaign took two weeks and a total of 109 point where measured on an area of 3150 km². The graben area is well limited by the major anomaly on the Bouguer map. A specific feature of this graben is this one is characterized by a large positive anomaly. In a way of enhancing small feature and also better localize the faults some filtered map have been calculated. Some interpretation on the tectonic setting is proposed.