Calibration of spring gravimeter using absolute gravity measurements. Results of parallel observations using LCR-ET and FG5 gravimeters during 2007-2010 in Jozefoslaw Observatory.

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Comparison of gravimeters relative to absolute measurements is frequently used method for determination of gravimeters scale factors. This technique as completely non-invasive is especially important in periodic control of continuously recording gravimeters.

We used almost 40 repeated parallel observations of LaCoste&Romberg spring gravimeter with FG5 ballistic gravimeter in Jozefoslaw Observatory carried out in last 40 months. Long series of repeated measurements allows us for comprehensive study on utility of calibration with this procedure. Different computational approaches was performed. Temporary variation of LCR scale factor with accuracy assessment are considered. Discussion concerning reliability of calibration dependent on measurements length was also given.