

# ON CALIBRATION OF ZEISS DINI12

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## ABSTRACT

The calibration of the digital levelling system consists of the type testing and the calibration of the instrument-rod system. In this case the type testing includes some field tests. The system calibration includes the comparison of the difference of rod readings with true height differences.

In the Finnish Geodetic Institute (FGI) we have investigated the precision of the digital levelling system (Zeiss DiNi12) and the spirit levelling method (Wild N3) with the simultaneous measurements at a new test field in Metsähovi. The results showed that the precision of the Zeiss DiNi12 was, significantly, better than that of the Wild N3.

For the system calibration of the digital levels a comparator is under construction. The comparator will apply components of the existing FGI vertical laser rod comparator and realize, simultaneously, the rod scale and the system corrections. Some preliminary measurements to calibrate the Zeiss DiNi12 system have been carried out and the effect of the single non-typical line correction was discussed.

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