



## **The measurement of rotation and transversal strain from seismic waves P and S**

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We present the result of measurement of rotation and strain by the small array of pendulum seismometers. The experiment took place in Polish observatory in Ksiaz (KSP). The effort was concerned on detection of rotations waves and site effects. The main problem was to measure small signals and the weak rotations and strains related to linear motions. There are described ways how the linear motion disturb measurement, and methods of reducing these disturbances. We propose to reduce the differences between the responses of seismometers by common calibration of all seismometers by the same signal. Parallel to the calibration method, we propose a new approach: the reduction of the dynamic relation between the difference of signals from two seismometers to the sum of these signals. We discover that this approach produce similar results to reducing disturbances by calibration. We consider reducing the effect of linear motion on transversal strain by positioning the linear array of seismometers in parallel to the seismic wave front. The group of seismometers was set to record local quakes from Lubin Copper Area. This setting revealed another disturbance of measurements, caused by some small error of angle in seismometers positioning.