

This thesis deals with assembly of a school seismograph and a common analysis of recorded data. A garden-gate type seismometer was assembled within the first part of my thesis. The pendulum construction of the seismometer enables recording of a horizontal component of seismic signal. The data analysis involves mainly processing of seismic noise in the building of Geologic Section of Faculty of Science in Prague - Albertov. Several eigenfrequencies of the building, which indicate the liability of the construction to be affected by ground motions, were found. As a supplement few recorded earthquakes were identified. The seismic noise analysis led to a finding of a relation between eigenfrequency variation and outdoor temperature in the form of a positive correlation between daily temperature average and eigenfrequency.