

Seismic Data Processing, Analysis and Metadata Creation

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The primary objective was to investigate the impact of earthquake-induced ground motion on buildings. For this purpose, seismic data collected from relevant stations were processed. These stations are equipped with modern strong-motion recording instruments, specifically accelerometers and velocimeters. Accelerometers measure ground acceleration, while velocimeters record ground velocity. The acquired data were processed using the USDP software developed in the United States. Since the raw data did not fully represent actual ground motion, several pre-processing steps were performed, such as baseline correction and filtering. As a result, clean and analysis-ready seismic signals were obtained.

The processed seismic data were collected from stations located in various regions of Georgia, taking into account the local geological characteristics — including locations such as Batumi, Oni, Enguri, and others.

Reference

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