

Open Data for Seismology

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The open data movement have become popular in seismology. A special session “Open data for seismology” was included in the 2019 Seismological Society of Japan (SSJ) fall meeting, in which extensive discussion was made to share the situations in and around academia and ideas related to open data. The session consisted of 17 oral presentations including 3 invited presentation and 4 poster presentations. The discussions are classified in 3 major subjects: and academic and political background, practice of data publication, development of tools to utilize published data and public engagement.

The 1995 Kobe earthquake was a point of departure of open data movement in seismology in Japan. Fundamental Seismic Survey and Observation Plan” published by Headquarters for Earthquake Research Promotion declared that the results of the observations based on the plan were opened in principle and were tried to be distributed smoothly. There have been efforts of publishing data by universities and institutes.

In 2019, DOI (Digital Object Identifier) has been minted to each MOWLAS (Monitoring of Waves on Land and Seafloor) observation network operated by NIED. Japan Agency for Marine-Earth Science and Technology (JAMSTEC) and National Institute of Polar Research (NIPR) has already be publishing data with DOI. Some authors have published data via data journal and data repository. There have been a variety of database related to seismology opened for the public constricted by universities, institutes, and research projects.

Some projects adopting open collaboration can be found in seismology. Analogue seismogram digitization and of transcription of historical earthquake documents collaborating with citizens or non-experts are good example. Development of tools both for experts and non-experts are important to utilize the published data or understand the significance of the seismological data.

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