

Comparison of the DPRK aftershocks observed in 2019 with the aftershocks between September 2016 and April 2018

Several seismic stations of the International Monitoring System (IMS) as well as non-IMS stations detected seismic signals from an extensive series of low-magnitude aftershocks, which followed the DPRK underground tests. We investigated these events using the waveform cross correlation (WCC) method. One of principal results is aftershock clustering. Using signals measured by IMS stations KSRS and USRK, one is able to distinguish between aftershocks similar to that observed on September 11, 2016 and those similar to the collapse events following the DPRK6. Since May 2018, there was no significant aftershock measured by IMS stations. On January 1, 2019, the IDC found a relatively large aftershock detected by two array stations KSRS and USRK. Several smaller events were detected using the multi-master WCC method combining waveform information from six practically co-located DPRK explosions and 23 largest aftershocks. The January 1, 2019 event has higher similarity with the DPRK6 aftershocks and is characterized by the P/S spectral ratio, which belongs to the population of the DPRK aftershocks.

Primary author: ROZHKOV, Mikhail (CTBTO)

Presenter: ROZHKOV, Mikhail (CTBTO)

Track Classification: Theme 2. Events and Nuclear Test Sites