



ID: I01-722

Type: Invited talk

Challenges and Achievements of Monitoring for Nuclear Test Explosions in the Context of the CTBT

Tuesday, June 29, 2021 2:30 PM (1 hour)

Close acquaintance with details of the CTBTO's International Monitoring System and the International Data Centre can tempt a keynote speaker to present the work as highly complicated, with success coming only via enormous effort. But stepping back from details such as the very size of datastreams received by headquarters in Vienna, and of datasets accumulated after nearly 25 years of operations, it is more important to note the main achievement of the IMS and IDC — namely that the CTBTO draws appropriate attention to events which member States can choose to study in greater or lesser detail. Intense efforts can then be brought to bear on events of particular interest, as deemed necessary by any data user.

This presentation will review the basic steps in detecting and analyzing the variety of types of signals generated by nuclear test explosions. It will then present examples of how nuclear test explosions were recorded, first in the earliest days of nuclear weapons development; how these data changed over the forty years leading up to the agreed CTBT text of 1996; and then how data acquired in the present century can be processed using the latest methods applied to broad areas.

Promotional text

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Session Classification: The 25th anniversary for opening the CTBT for signature: invited talk on Seismic technology

Track Classification: Backbone elements