

1.3-P01. A comparison between different radionuclide source location techniques using DPRK3 as an example.

The problem of locating release sources causing detections in systems monitoring atmospheric radioactivity is of crucial importance in the area of verification of nuclear activities, such as CTBT monitoring. An analysis of radionuclide detections, most likely associated with a release from the third announced nuclear test in North Korea, has been performed using several different source location algorithms. The analysis includes the standard PSR, as used by CTBTO, a modified PSR technique using overlapping Fields of Regard (FOR), a technique using time-shifted overlaps assuming several releases, and calculation of the Bayesian probability density function. The results are compared and discussed.

Primary author: RINGBOM, Anders (Swedish Defence Research Agency (FOI))

Presenter: RINGBOM, Anders (Swedish Defence Research Agency (FOI))

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