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## A study of the radionuclide background and potential sources at the IMS station SEX63, Sweden

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Understanding the radionuclide background at the radionuclide stations in the IMS network is important to improve the verification capability of the network. The background at the IMS station SEX63 in Stockholm Sweden has been studied in the time period between 2012 to 2019 using data from the IMS SAUNA II system. From 2017 data have also been evaluated from the co-located SAUNA III system. Xenon detections have been studied to understand potential sources and their contributions to the detections at the station. Detections have been characterized with respect to concentrations, isotopes detected and wind direction. ATM has been used to try to identify specific sources in a few case studies.

### Promotional text

Understanding the radionuclide background at the radionuclide stations in the IMS network is important to improve the verification capability of the network. The background at the IMS station SEX63 has been studied between 2012 and 2019 and the results will be reported.

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