extension to particulates for unifying CTBTO radionuclide analysis software tools

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iNSPIRE (iNtegrated Software Platform for Interactive Radionuclide rEview) is a software application that was developed by the CTBTO International Data Centre (IDC), based on modern Python/Qt framework. A first release, which covers beta-gamma coincidence-based detection systems in use at IMS stations, was deployed in IDC operations and delivered to National Data Centres (NDC) late 2020. The first release covers current and next generation noble gas technologies.

Over 2021-2022, the IDC developed phase 2 of iNSPIRE project by extending the software functionalities to IMS particulate and HPGe SPALAX based noble gas systems, with the aim of completing the migration to open-source and unifying the radionuclide analysis software tools for particulates and noble gas data at the IDC and in the NDC-in-a-Box package.

Additional goals include (a) moving to modern software development technologies, (b) optimizing the software cycle management (shared libraries – same language), and (c) enhancing software modularity for integrating new technologies at IMS stations and new analysis methods.

The contribution aims at illustrating implemented functionalities for particulates analysis.

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Promotional text

The new version of iNSPIRE integrates the analysis functionalities of all CTBTO radionuclide technologies (noble gas and particulate) into a single versatile software platform

Oral preference format

in-person

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