Session Program

June 28, 2021 to July 2, 2021

CTBT Science and Technology Conference 2021 (SnT2021)

T3.5 e-poster session

Thu, July 1

9:00 AM

12:00 PM

T3.5 e-poster session: T3.5 - Data Analysis Algorithms

Poster Session | **Location:** Online | **Conveners:** Mr Ivan Kitov, Mr Abdelhakim Gheddou, Mr Christos Saragiotis

9:00 AM

T3.5 e-poster session: e-poster session - T3.5 - Data Analysis Algorithms

Poster Session | **Location:** Online | **Conveners:** Mr Abdelhakim Gheddou, Mr Christos Saragiotis

Automatic Classification of Particulate Radionuclide Spectra

Speaker
Mr Tryggvi Edwald

ARMD-a suite of Analysis System for CTBT Radionuclide Monitoring Data

Speaker
Mr Xinjun Zhang

The on-site inspection area coordinate determination method

Speaker
Mr Igor Rybin

Development of a processing toolkit for in-depth radionuclide data analysis: Case study for the period of 2017-2020 IMS detections

Speaker
Mr Mohammad Javad Safari

Event Simulation using Augmented Reality and Progressive Data Fusions

Speaker
Mr Syed Muhammad Ayub Shah

On the requirements for validation data sets in potential future scientific projects for enhancing and developing methods to highlight possible nuclear explosion signatures in radionuclide monitoring

Speaker
Mr Martin B. Kalinowski

A new method of denoising seismic signals using blind source separation

Speaker
Hicham Saylani

Quality Control source analysis using a rotating frame of reference

Speaker
Mr Matthew Cooper

Recent algorithm developments on methods for the analysis of radioxenon beta/gamma coincidence spectrum

Speaker
Mr Antoine Cagniant

An envelope-based approach for seismic signal discrimination

Speaker
Mr Driss Agliz

Technique to mitigate effects of detector gain drifts through use of larger regions of interest

Speaker
Mr Michael Mayer

Distributed detection and fusion of multi-signature explosion-sourced waveforms: predictive capability, quantitative performance, and experimental demonstration

Speaker
Mr Joshua Carmichael

Testing the Forensic Radionuclide Event Analysis and Reconstruction Tool (FREAR)

Speaker
Mr Ian Hoffman

Automatic radioxenon data validation for increased measurement reliability

Speaker
Ms Jennifer Mendez

The application of a dynamic correlation processor for IMS detection screening

Speaker
Ms Ana Aguiar

Method for calculating radon activity and radon rejection

Speaker
Mr Michael Mayer

Monte-Carlo Calculations of Isotopic Ratios of Fission Products Detected at IMS Radionuclide Stations

Speaker
Mr Boxue Liu

An algorithm for determining the moment of occurrence of changes in the environment that are non-linear and / or non-Gaussian in nature

Speaker
Mr Miodrag Vracar

The algorithm of infrasound signals network selection efficiency estimation

Speaker
Mr Andrey Rogovoi

Is there a potential for further enhancing IDC spectrum analysis methods of CTBT radionuclide measurements after 25 years of progressive development?

Speaker
Mr Boxue Liu

Automatic quality checks of the Calibration files for RN Particulate Stations

Speaker
Mr Andreas Wiens

IMS Data Fusion and the Possibilities of Dempster-Schafer Theory

Speaker
Mr Ian Hoffman

Method for assessing 37Ar emissions from nuclear reactors

Speaker
Mr Martin B. Kalinowski

Accounting for radioxenon interferences

Speaker
Mr Matthew Cooper

Combining IMS and non-IMS seismic stations using CTBTO distributed software (NDC-in-a-Box)

Speaker
Mr Haijun Wang

Classification of seismic events using a time-frequency based approach

Speaker
Mr Abderrahman Atmani

The Coda Calibration and Processing Tool: Java-based Freeware for the Geophysical Community

Speaker
Mr Kevin Mayeda

Massive earthquake detection techniques: Matched filter and fingerprinting

Speaker
Mr Guillermo Gonzalez

Phases Analysis of the Las Gonzalez Mérida, seismicity burst 2015-16, implementing SeisComp3 tool

Speaker
Ms Keyla Ramirez

A new algorithm for processing beta-gamma coincidence spectra based on the maximum likelihood estimation

Speaker
Mr Nikolay Sidorov

Multivariate analysis of fission product ratios to determine the history of nuclear fuel

Speaker
Carl Fredrik Hellesen

Using waveform correlation and template event metadata to reduce analyst workload

Speaker
Ms Amy Sundermier

Improving the sensitivity for radioxenon beta-gamma measurements by optimizing the ROI limits for each sample

Speaker
Mr Anders Ringbom

Integration of a Generalized-F Detector at the IDC and US NDC

Speakers
Mr Thomas VanDeMark, Mr Jeffrey Given

Performance monitoring of beta-gamma detectors using quality control data

Speaker
Mr Michael Mayer

Spot check of seismic and infrasound data and products at the IDC using waveform cross correlation and the REB historical events

Speaker
Mr Ivan Kitov

Recovery of the largest aftershock sequences using waveform cross correlation

Speaker
Mr Ivan Kitov

A semi-automatic cepstral method for seismic event depth estimation

Speaker
Mr Daniel Stayt

An Alternative Proposal for Estimation of Body Wave Magnitude Taking Account of Noise Magnitudes

Speaker
David Steinberg

A new automatic first arrival picking algorithm based on a mathematical approach with considering the fractal dimension

Speaker
Mr Shamseddin Esmaeili

A data visualisation tool for radionuclide detection events

Speaker
Mr Daniel Chester

12:00 PM