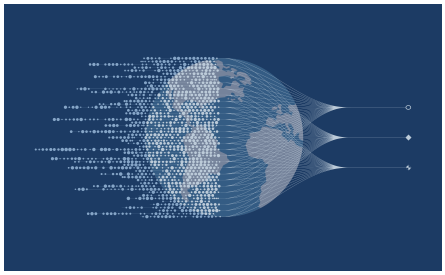

ID: **Ke05** Type: **Keynote**

learning, deep learning and high-performance computing

This talk aims to explore the potential transformative impact of machine learning, deep learning, and high-performance computing on enhancing the operational capabilities of CTBTO in global monitoring and verification. Advanced AI techniques and scalable computational resources open up an opportunity for CTBTO to improve the detection, localization, and analysis of nuclear test signatures across seismic, hydroacoustic, infrasound, and radionuclide data streams. The presentation will discuss expected advancements in data-driven models, real-time processing, and automated decision-making, which could enhance accuracy and reduce response times. Furthermore, it will consider future prospects for integrating cutting-edge AI and HPC technologies to strengthen verification efforts, aiming to ensure the effectiveness and reliability of the Treaty's monitoring regime.

E-mail

In-person or online preference

Presenter: Mr BURNAEV, Evgeny (Skoltech, AIRI)

Session Classification: Keynote on machine learning, deep learning and high-performance computing