ID: Type: **Oral**

4.1-O1. A novel approach to assess the verification capability of the IMS noble gas network

The development of radioxenon monitoring technology and methodology should be guided by systematic and detailed study of the overall capability of the network for alternative system characteristics, network configuration and analysis methodology. For this purpose, suitable metrics are needed to evaluate and optimize relevant properties of the overall network verification capability. Because the verification mission goes well beyond simply detecting radioxenon, such metrics also need to go beyond single-isotope detection probability maps for given source strengths, network density and measurement system sensitivity. An initial study has been performed that attempts to define and use suitable metrics to investigate the impact of network configuration and measurement system characteristics on overall verification capability, including how well radioxenon sources are detected, located, timed, and discriminated from other sources.

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

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

Track Classification: 4. Performance Optimization