SnT 2025 CTBT: SCIENCE AND TECHNOLOGY CONFERENCE
8 SEPTEMBER ONLINE DAY
9 TO 12 SEPTEMBER AT HOFBURG PALACE, VIENNA & ONLINE

Improving radioxenon background estimates based on nudging observations and machine learning

LIGHTNING TALK

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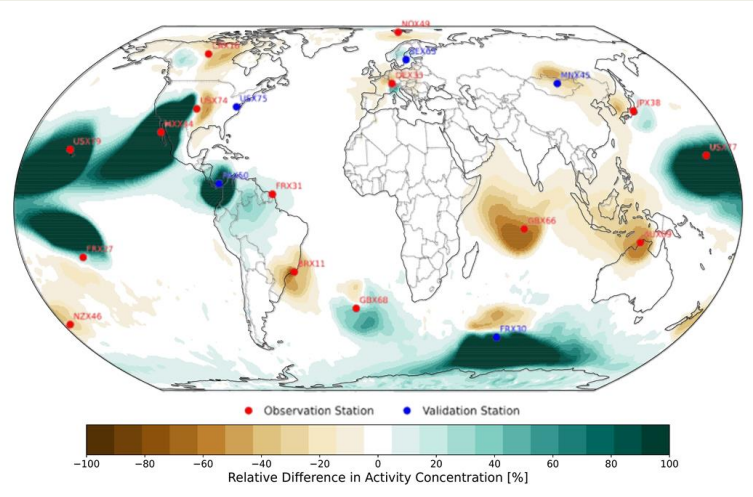
- Our poster is about novel approaches to the challenging task of detecting underground nuclear explosion signals.
- This implies a combination of a data assimilation approach called *Nudging** and a machine learning method using the *Isolation Forest Algorithm*.
- First results demonstrate the ability of the chosen data assimilation approach to improve radioxenon background fields but also point to expected challenges.
- Two different scenarios for the envisioned exploitation of the methods are discussed.



* *See also the XeBET project companion poster P2.3-286.*