

Applied machine learning for next generation nuclear safeguards

Traditional safeguards

- Expensive and labor intensive
- Interpretable and proven

Data science driven safeguards

- Can rely on unattended monitoring
- Can outperform traditional approaches
- Difficult to interpret for operators
- Requires significant R&D to develop and implement

Ongoing collaboration between SNL, PNNL, and ORNL to determine how machine learning and data science can improve nuclear safeguards. A wide range of state-of-the-art methods have been implemented to various levels of success.

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Sponsor: NNSA Office of International Nuclear Safeguards (NA-241)

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