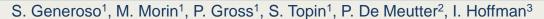
# Contribution of Bayesian methods and uncertainty quantification to source location and interpretation of IMS radionuclide measurements.

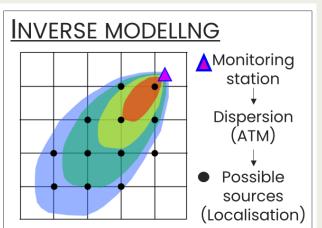


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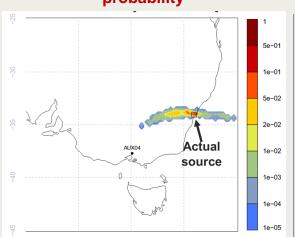


- <sup>1</sup> The French Alternative Energies and Atomic Energy Commission (CEA), DAM, DIF
- <sup>2</sup> Belgian Nuclear Research Centre (SCK-CEN)
- <sup>3</sup> Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO)
- Use of Bayesian inference in a real-case application, for which the actual source is known
- Comparisons to localisation methods actually part of NDC operational capacities
- Focus on source term reconstruction and meteorological uncertainty quantification
- Sharing of lessons learned for NDC operational capacities
- If you want to find out more, come over for a chat in front of our poster

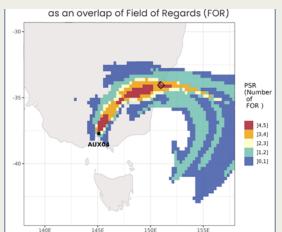
### Both deterministic and probabilistic approach considered



# FREAR Bayesian source location probability



## Comparison to other operational methods



#### Source term estimate & comparison to actual emissions

