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Title: Validation and Uncertainty Assessment of Ground-Based Nuclear  
Explosion Monitoring Models

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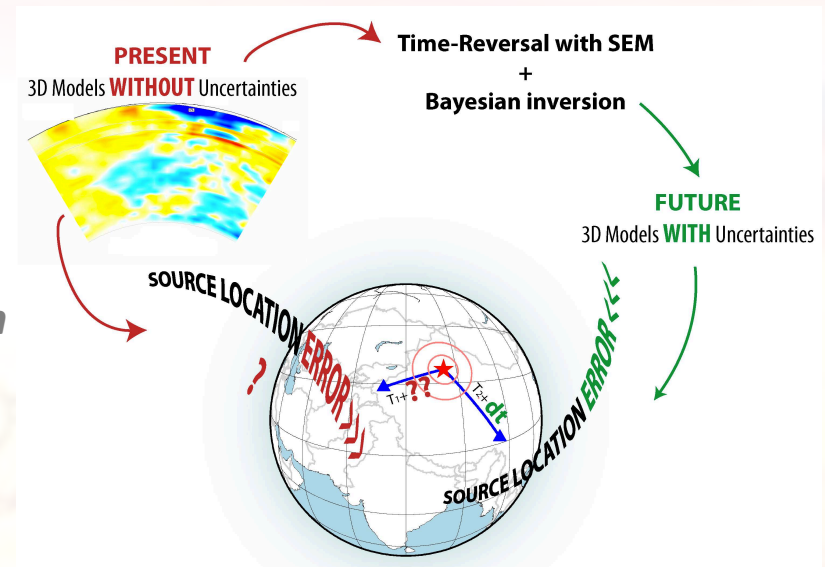
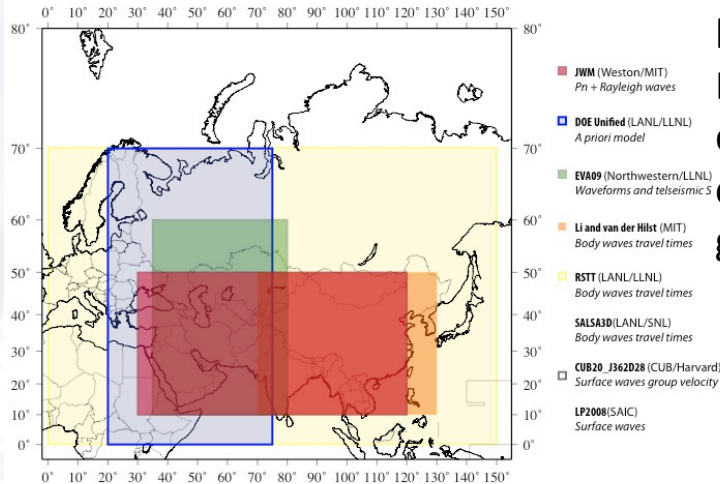
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## Validation and Uncertainty Assessment of Ground-Based Nuclear Explosion Monitoring Models

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### MOTIVATION 1: *Decision Making*

Evaluation of the merit in terms of prediction of recently developed 3D geophysical models. This will improve confidence level into regional event identification and will guide future development of monitoring systems.



### MOTIVATION 2: *Source Parameters Estimation*

Map and assess seismic source location error associated with uncertainty of 3D models.

We **validate** state-of-the-art seismic models and seismic imaging techniques by developing a **novel framework** that combines **independent full waveform propagation methods** and **statistical inferences**.

## APPLAUSE

Bozdag, E., and J. Trampert, 2010, **Assessment of tomographic mantle models using spectral element seismograms**, *Geophys. J. Int.*, 180(3), 1187–1199,  
<http://dx.doi.org/10.1111/j.1365-246X.2009.04468.x>

APPLAUSE