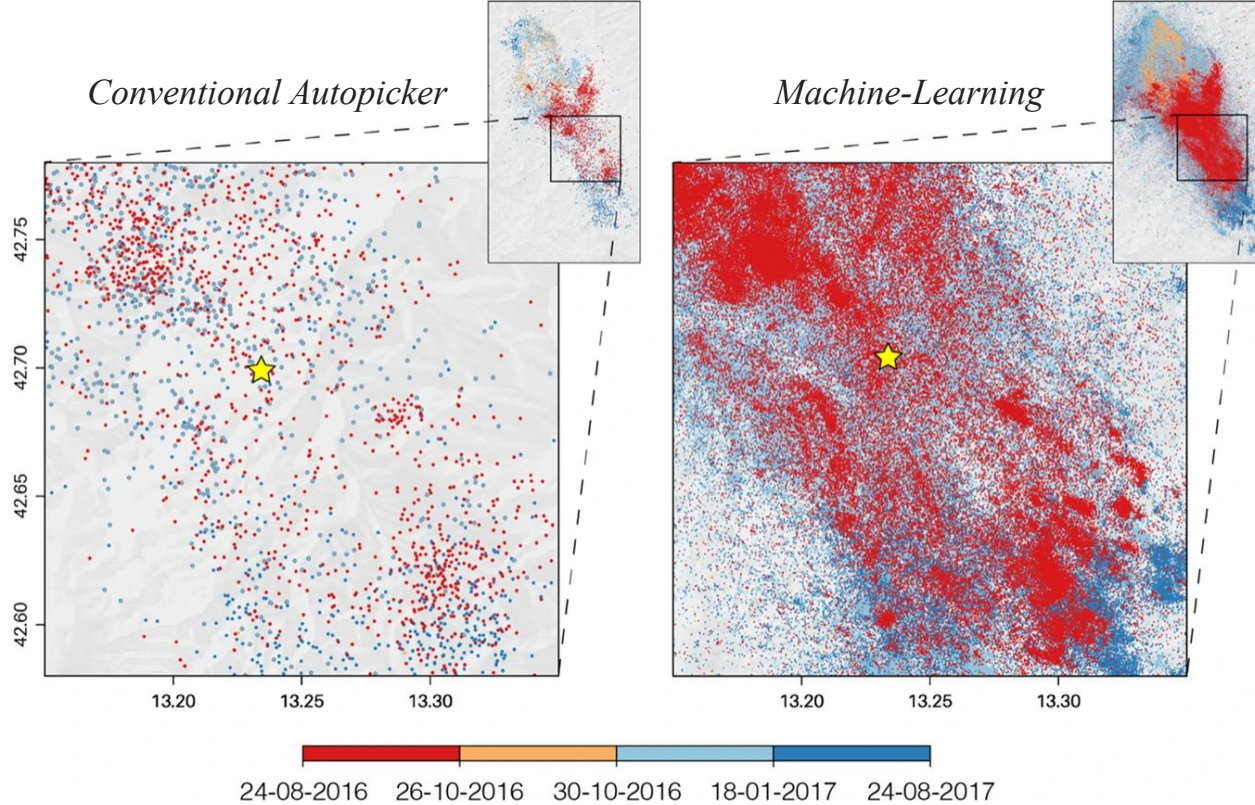




Mostafa Mousavi

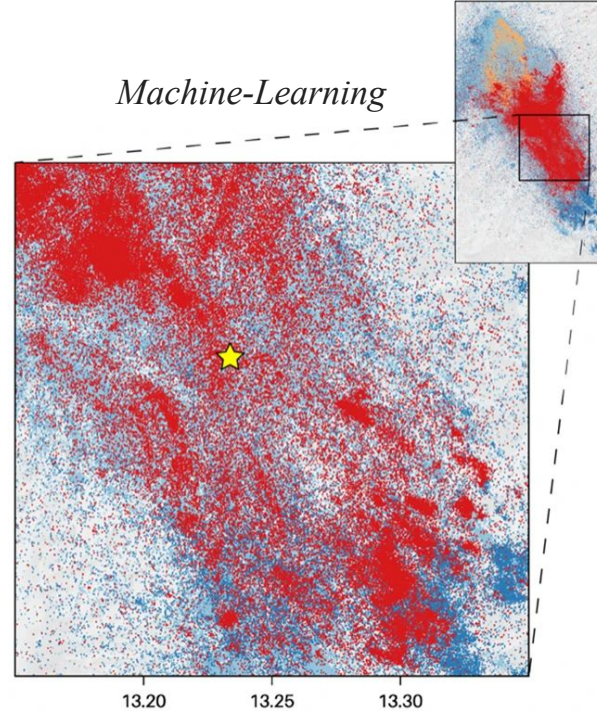
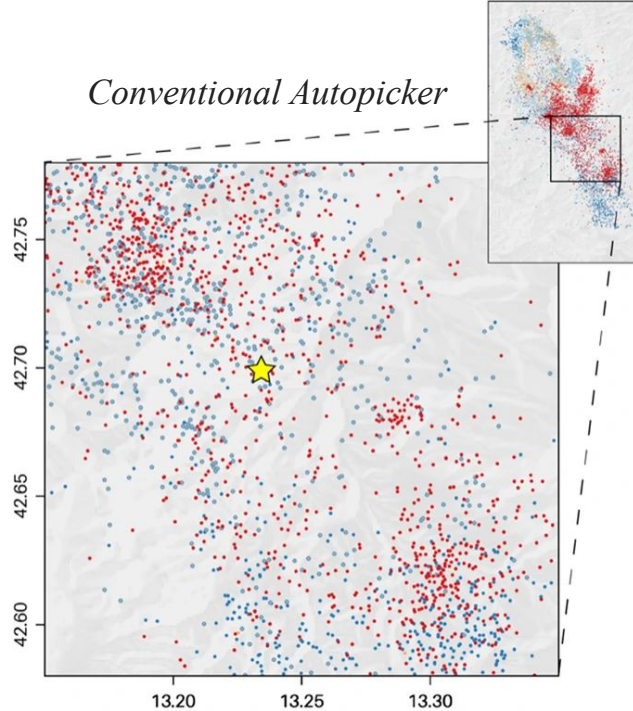
Harvard/Google

Earthquake Catalogs of Central Italy

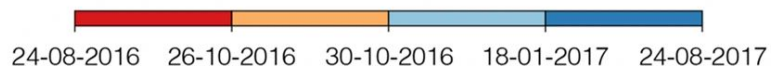




*Analog Imaging
(Past!)*

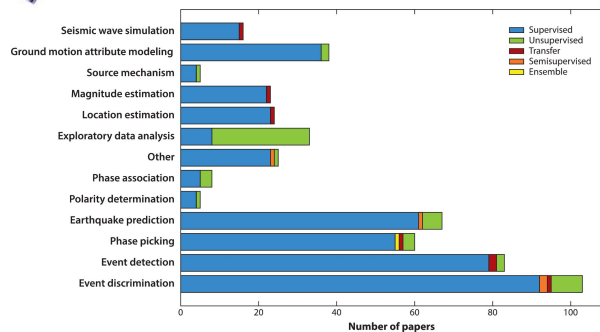
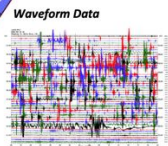
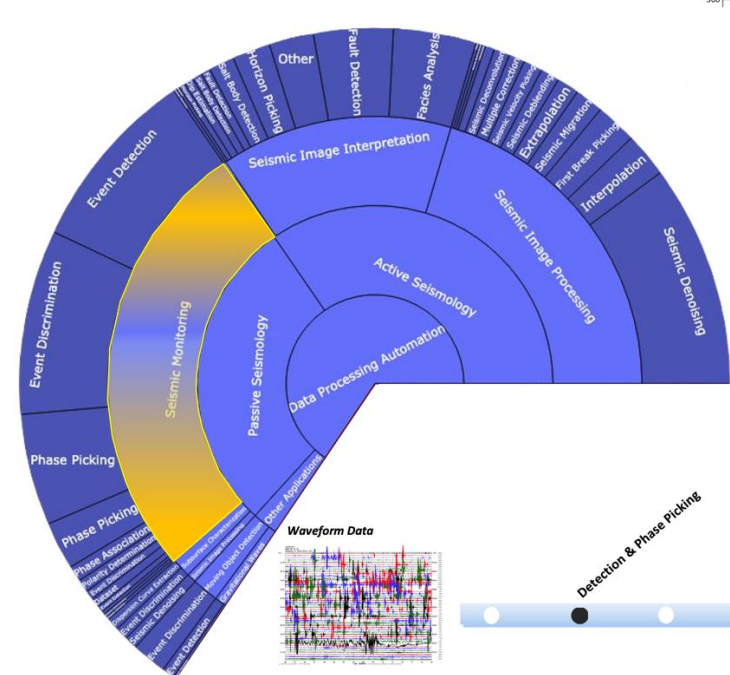


*High Fidelity
Imaging
(Future!)*

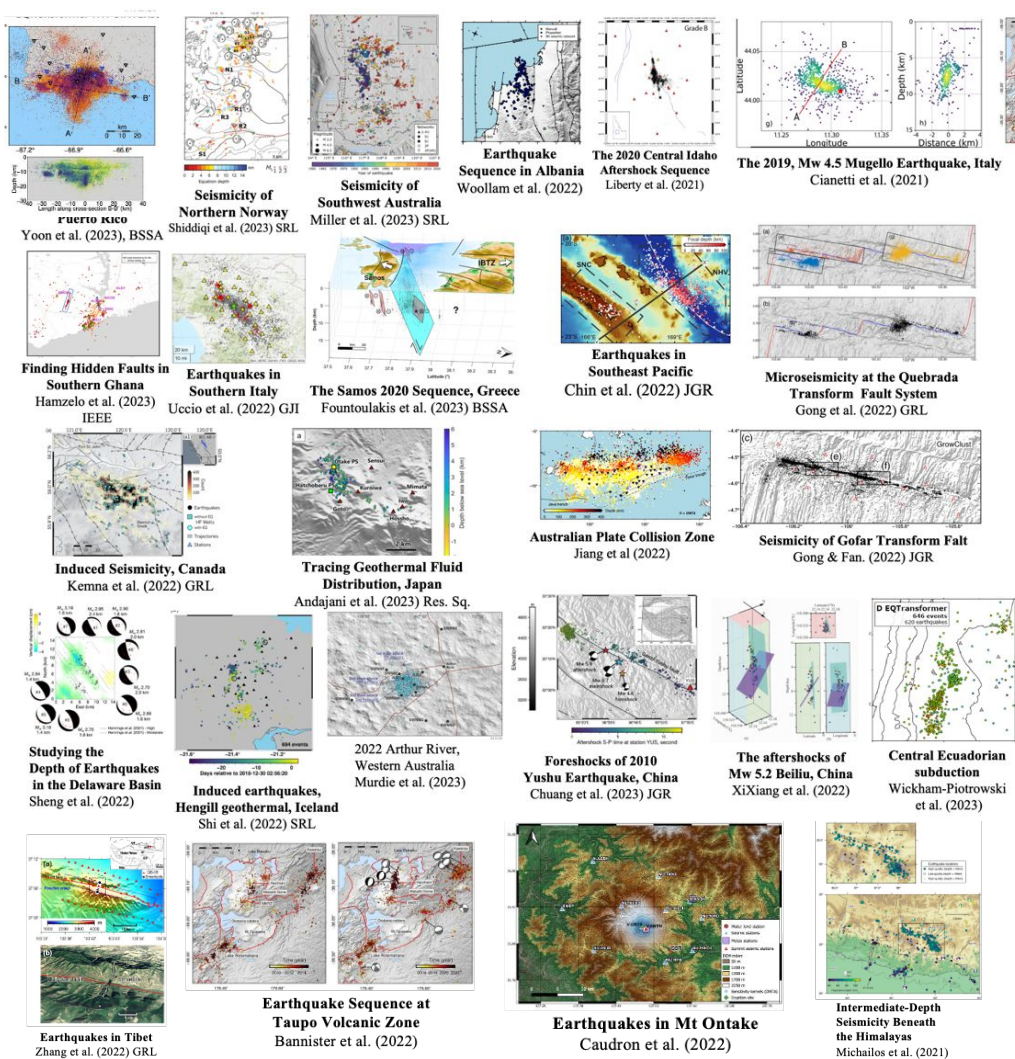


Digital Imaging



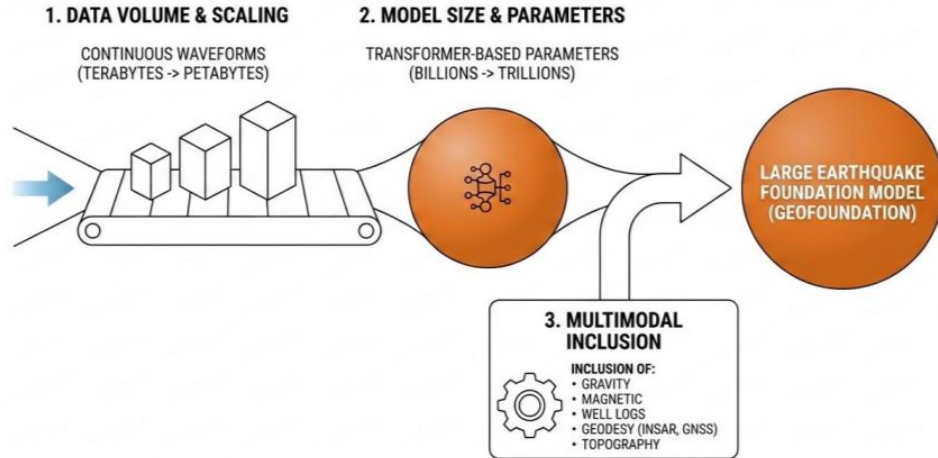
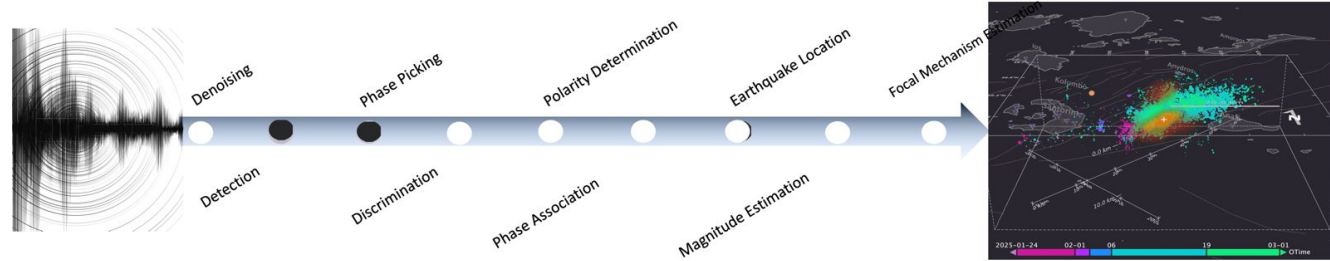
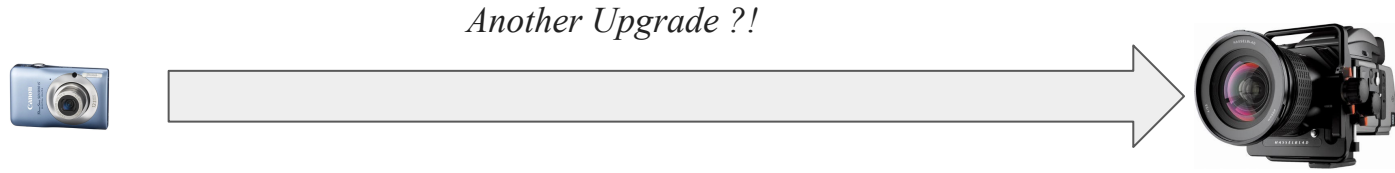


Mousavi & Beroza (2022; 2023)

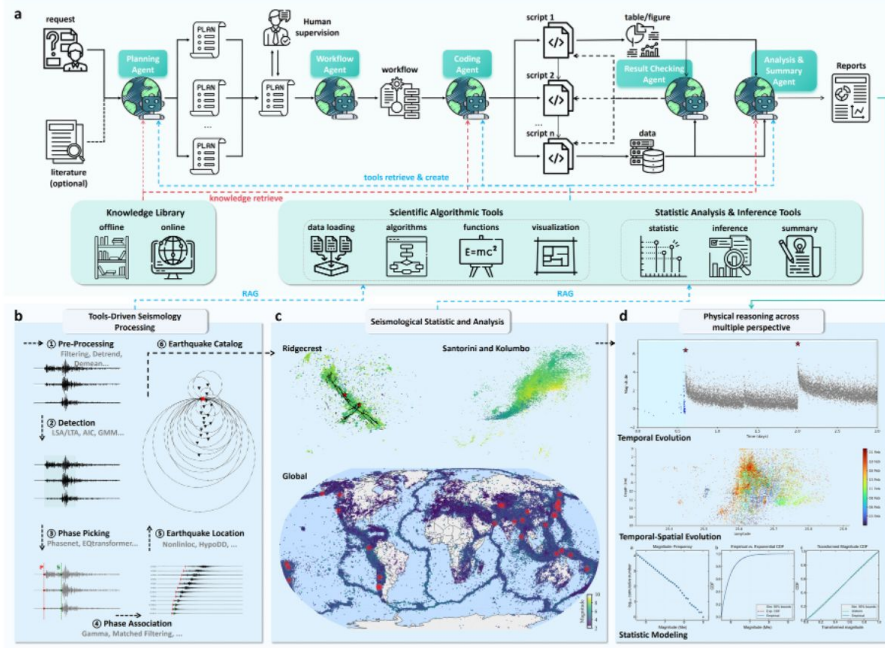
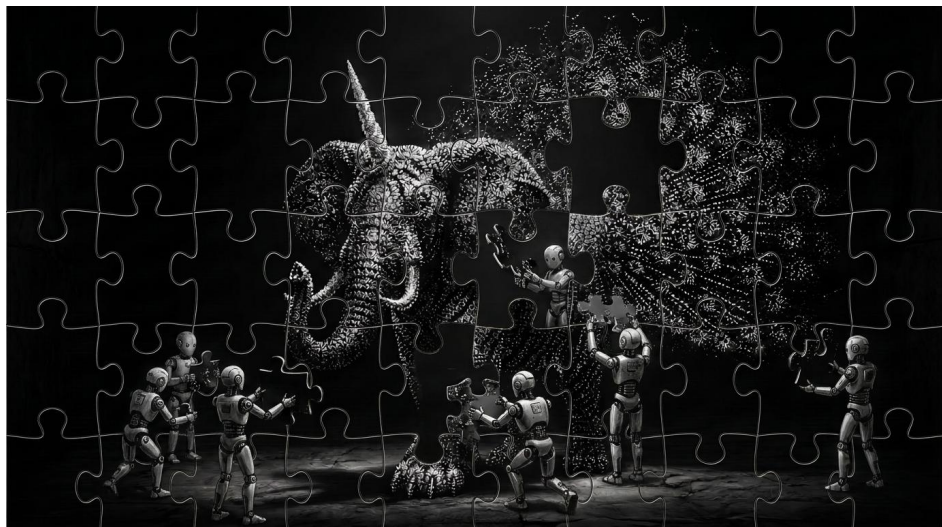




I. Further Resolution Improvement



III. Scaling the Analyses Across Case Studies



2,200 specialized analytical.
110 tasks across different
complexity levels.

Specialized Planning Agent.
Workflow Agent
Coding Agent
Result Checking Agent
Analysis & Summary Agent

TRACE: a multi-agent framework for autonomous seismic discovery and end-to-end scientific reasoning, Liu et. al. (2026) In Review