

SBI meets reality

Applications to galaxy surveys and beyond

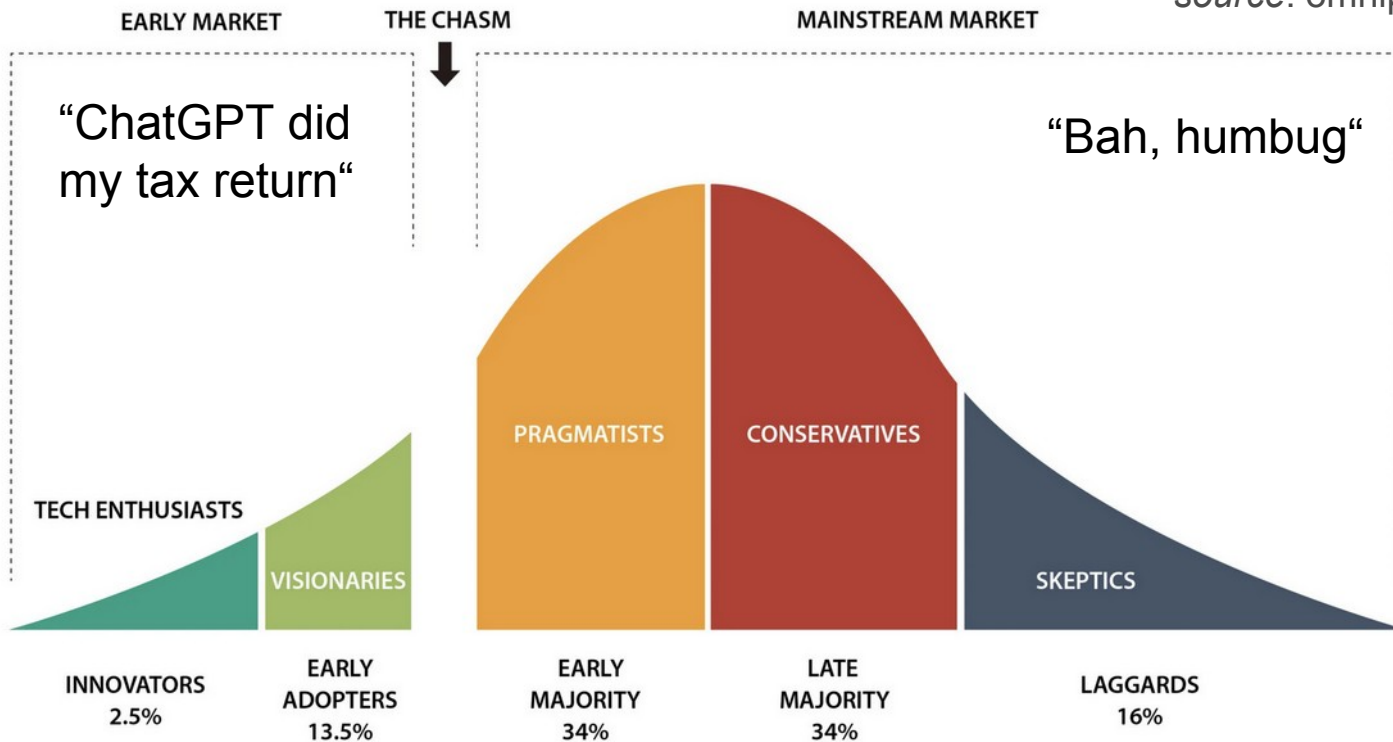
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The 5 stages of technology adoption

source: omniplexlearning.com



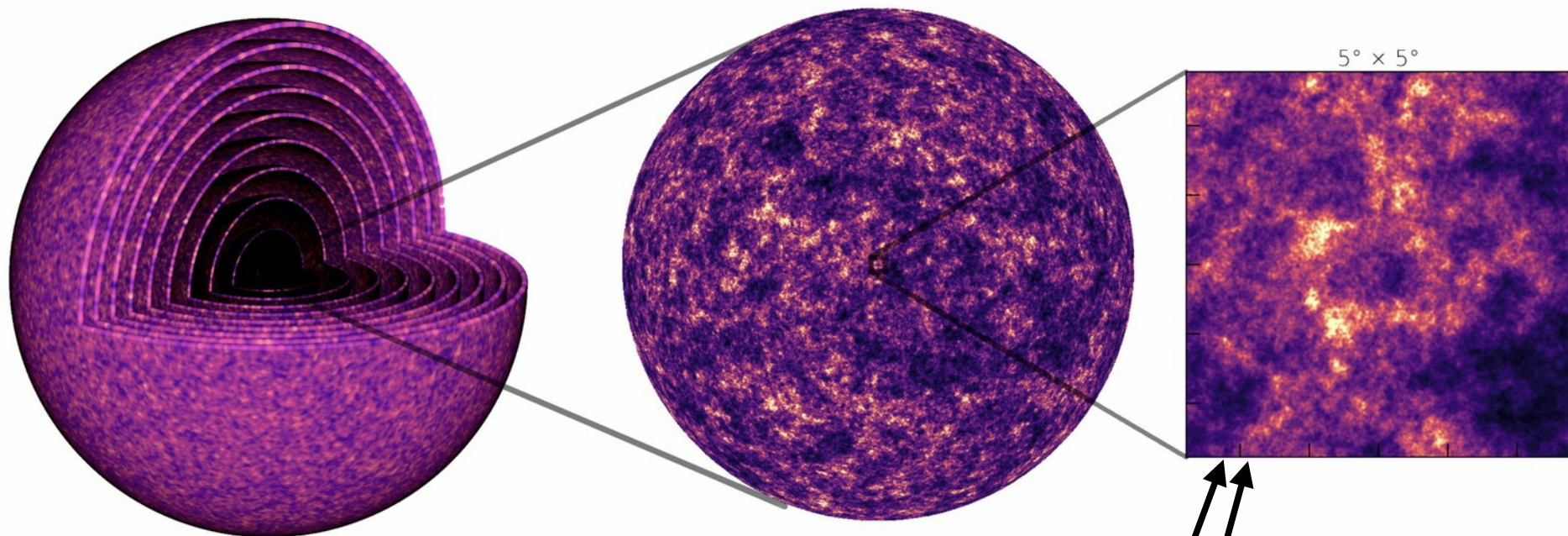
performance

ease of use

reliability & robustness

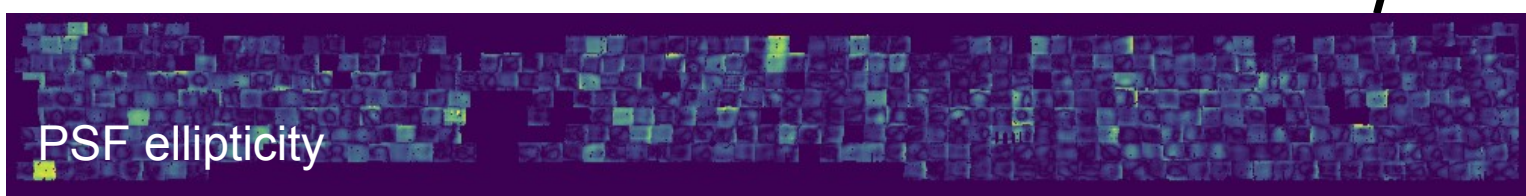
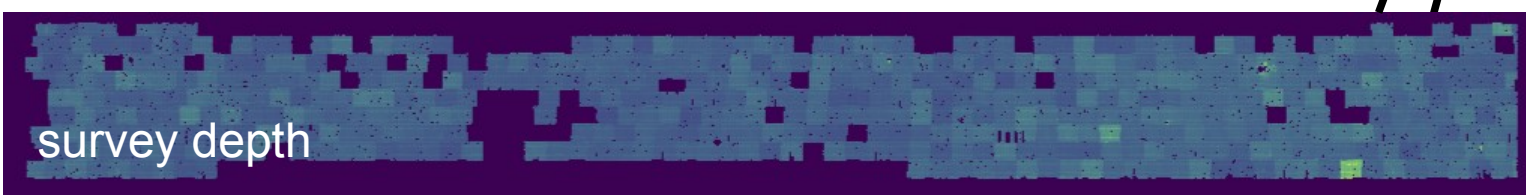
(computational) cost

Fast simulation tools for SBI



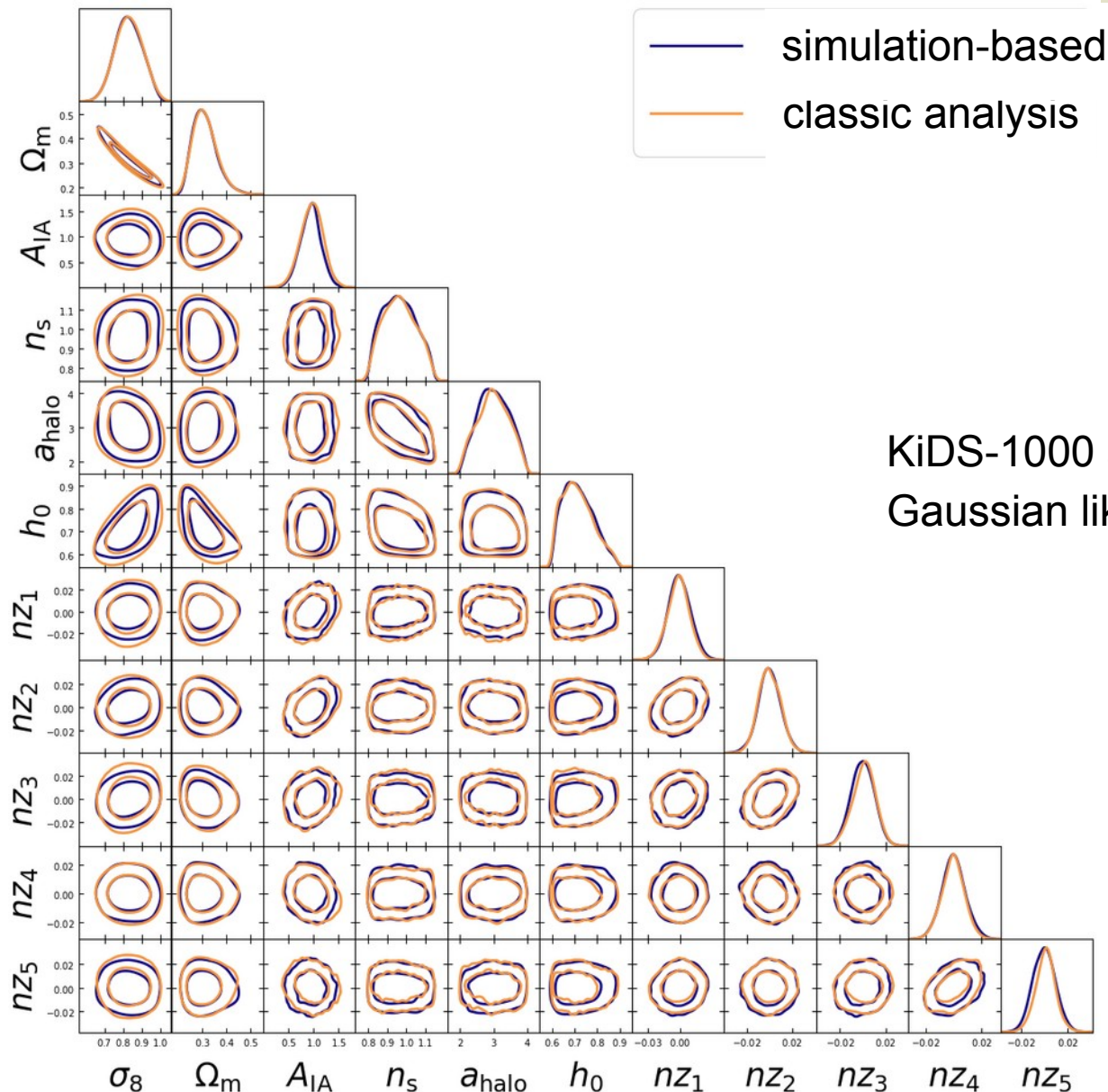
GLASS – Tessore+ (2023)

SALMO – BJ+ (2021)



Our SBI has comparable cost to classic likelihood analysis.

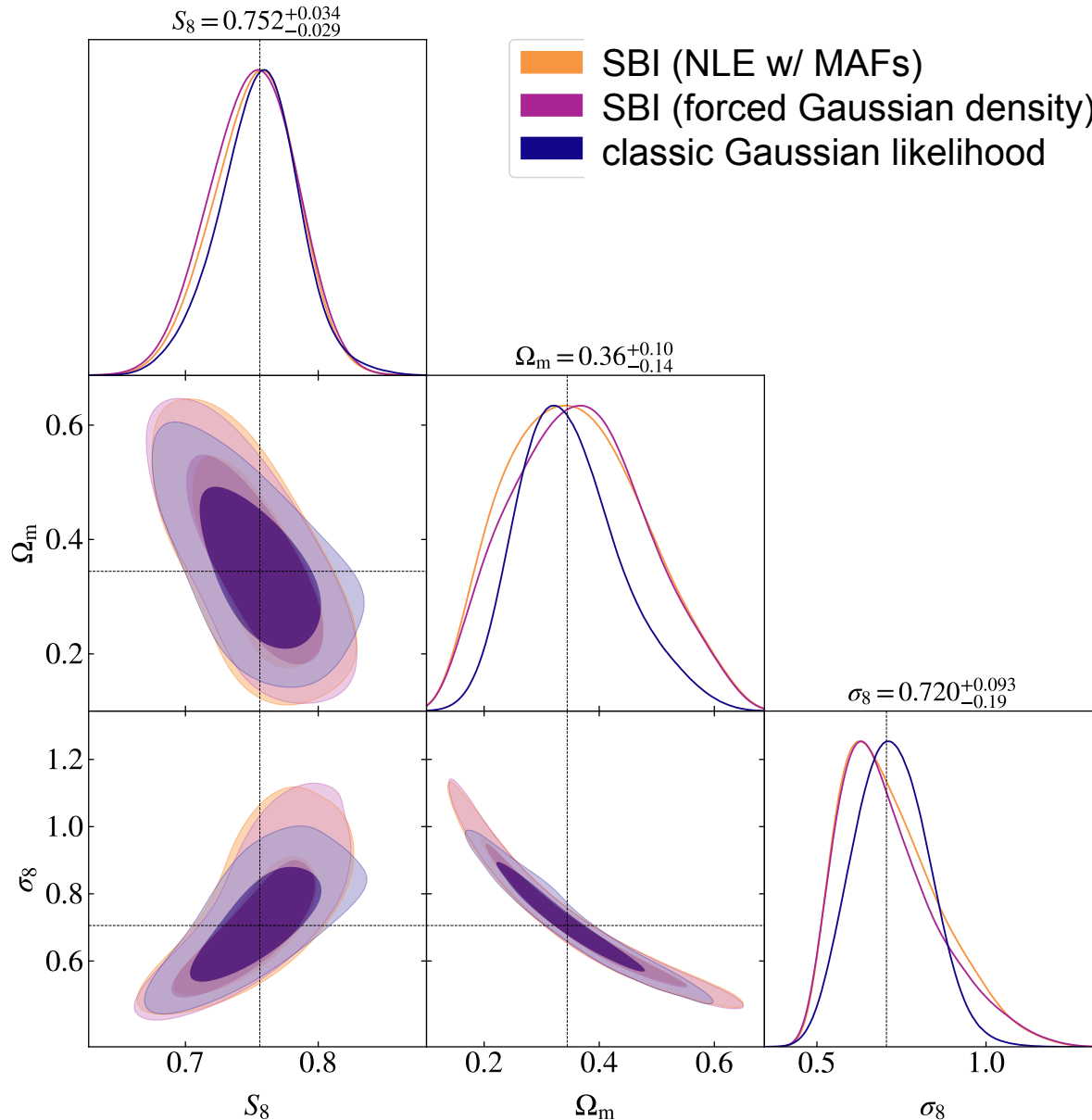
Forward-modelling the KiDS survey



KiDS-1000 analysis w/ full complexity
Gaussian likelihood imposed on mock

Lin, von Wietersheim-Kramsta,
BJ & Feeney (2023)

SBI: better accuracy, more validation



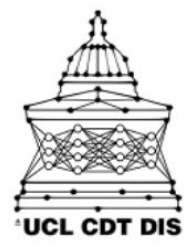
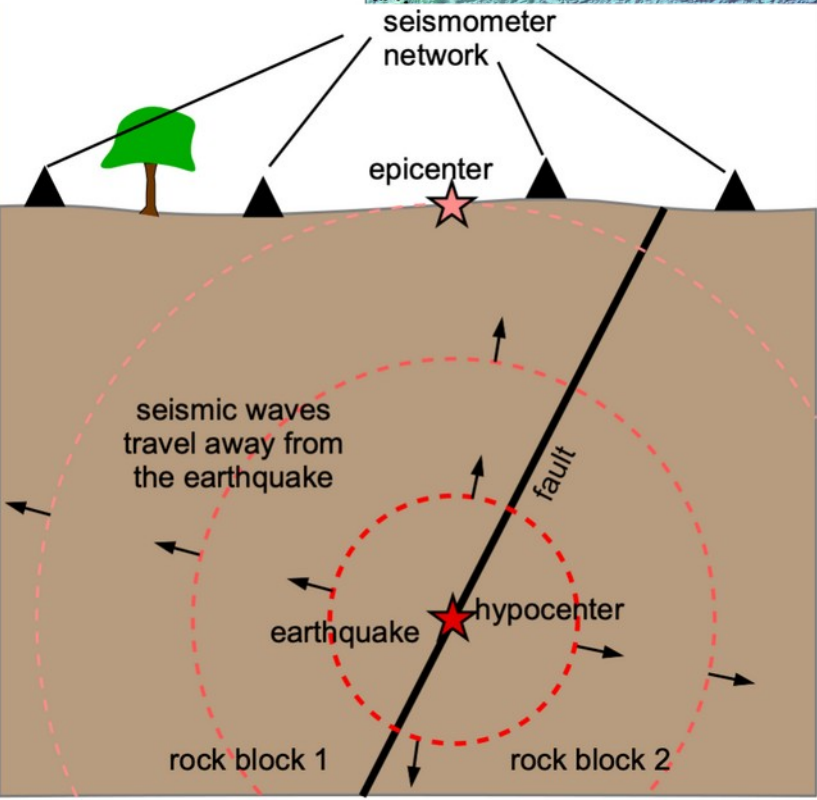
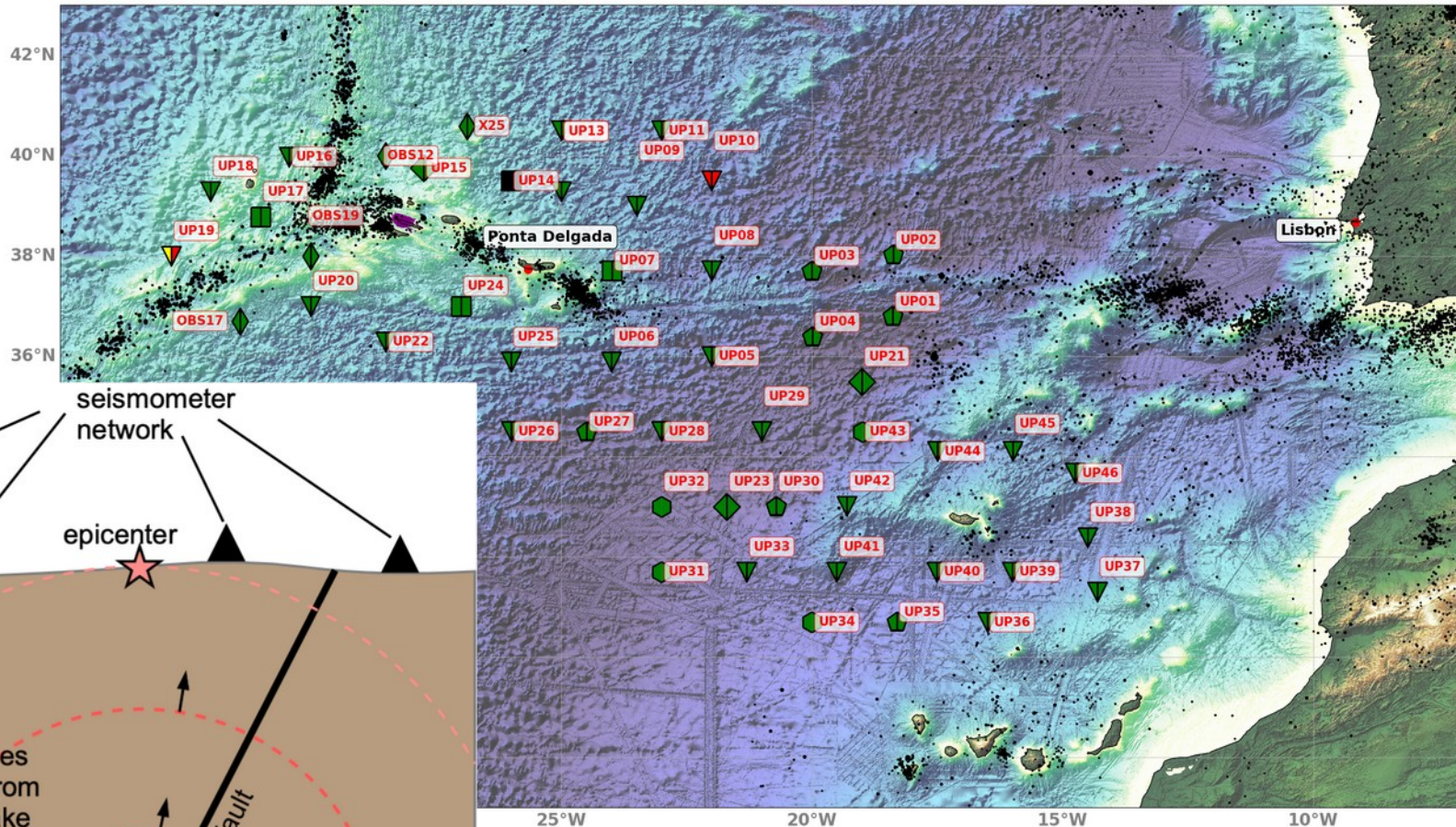
*Maximilian von
Wietersheim-Kramsta*



Kiyam Lin

von Wietersheim-Kramsta, Lin,
BJ+, in prep.

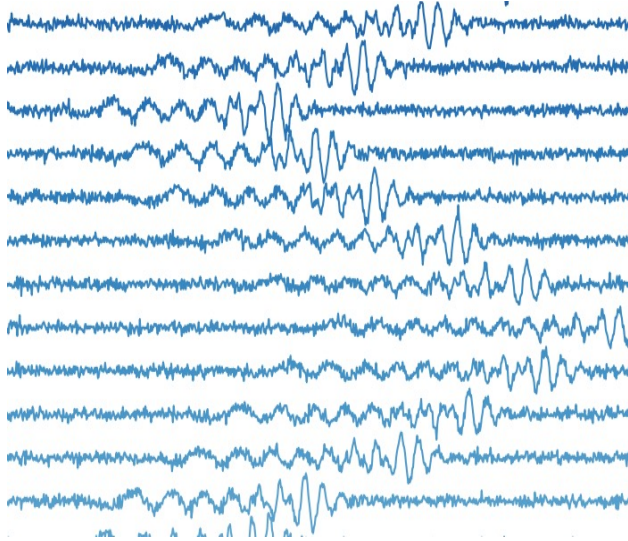
Pioneering SBI in earthquake characterisation



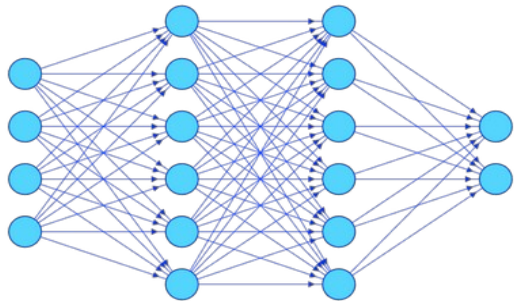
Alex Saoulis

Earthquake source inversion

Seismic event traces



SBI (NPE)



Inferring hypocentre & time
+ fault geometry

