



Jorge Crempien

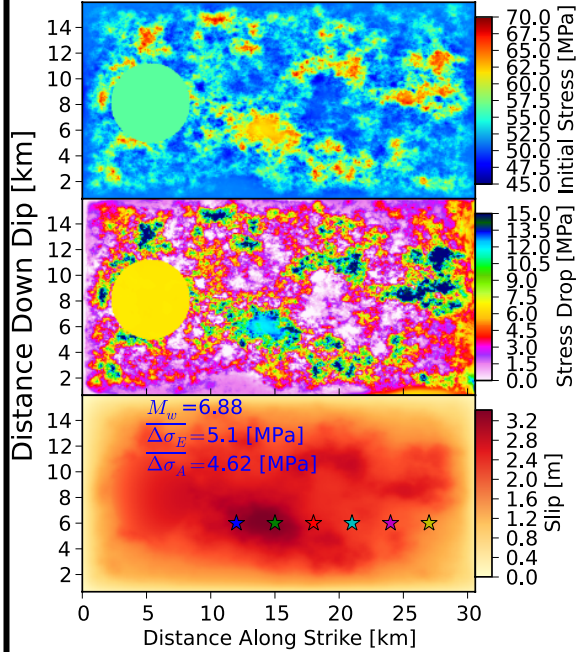
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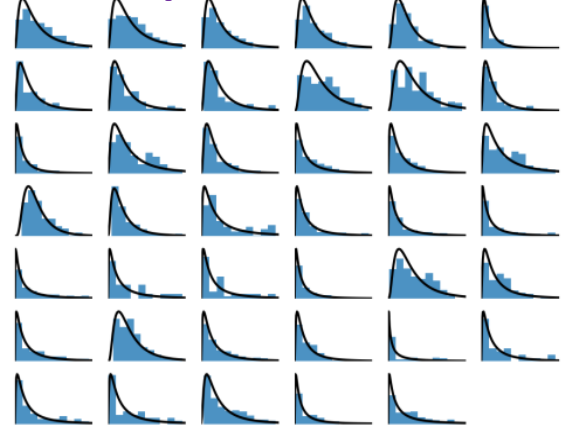
Research Interests

- Physics-based simulation of earthquake source processes with **kinematic** and **dynamic rupture** methods.
- Simulation of near field **strong motion** for engineering purposes.
- Simulation of **tsunami processes** with physics-based methods.
- Inversion of multiple data (strong motion, tsunami, GPS) to find kinematic earthquake rupture.
- constraining physical processes such as **probability distributions** and **spatial correlations** of kinematic rupture parameters .

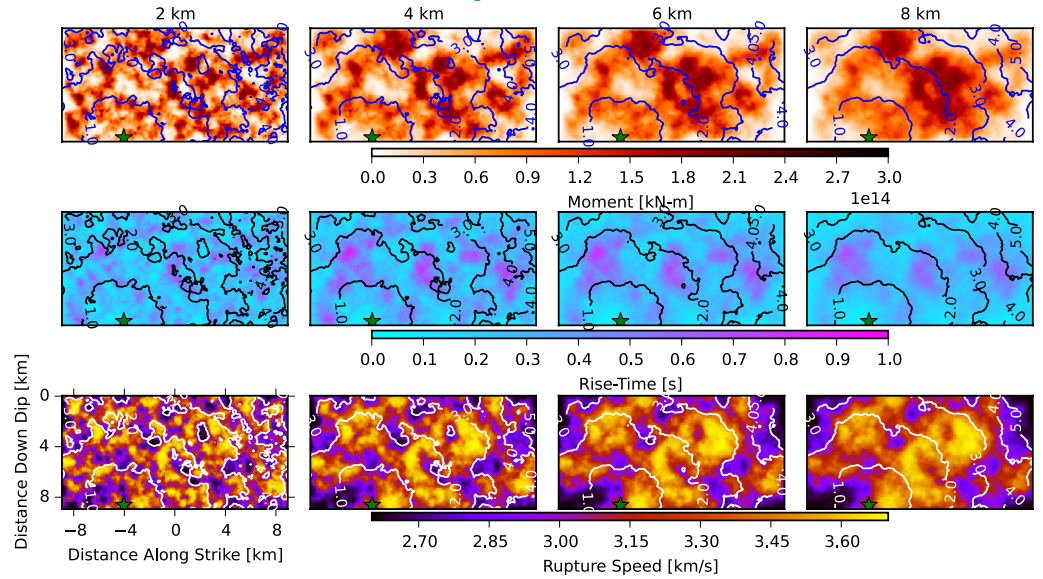
Dynamic rupture simulations



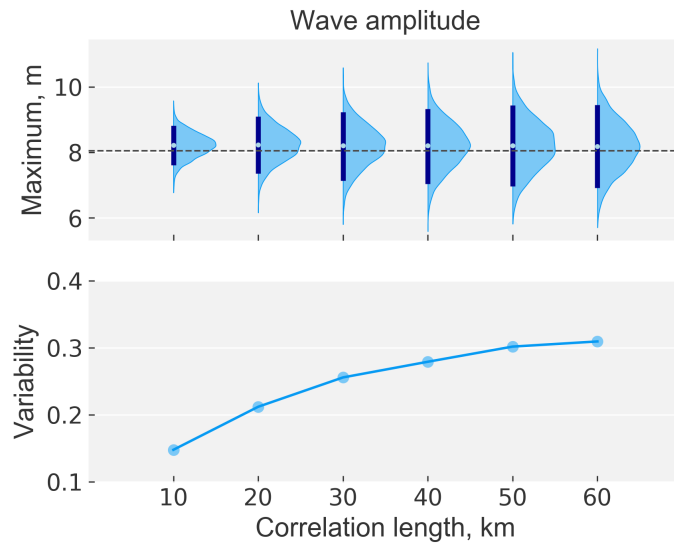
Slip distributions



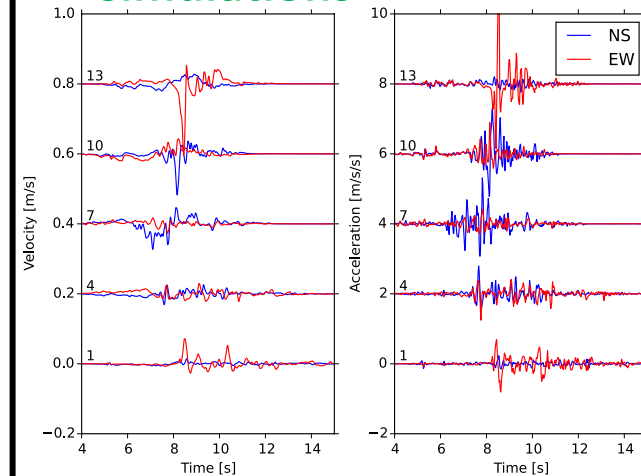
Kinematic rupture simulations



Tsunami simulations



Synthetic strong motion simulations



Spatial correlations

