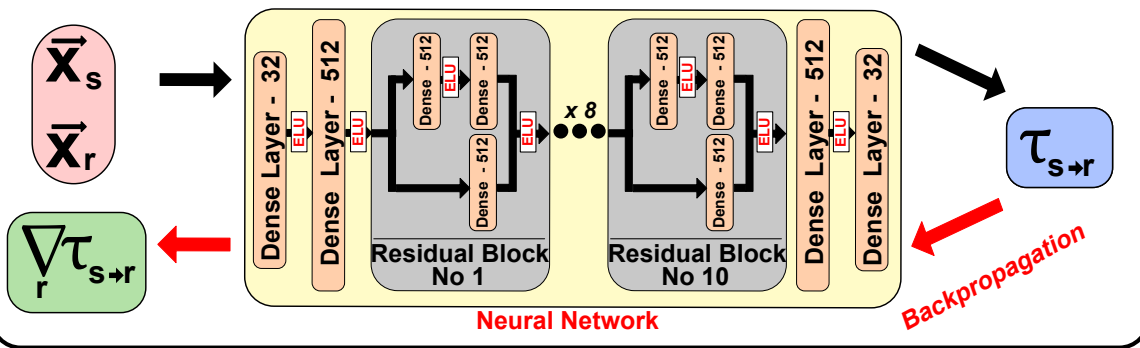


HypoSVI: Solving the Eikonal equation with Deep Neural Networks

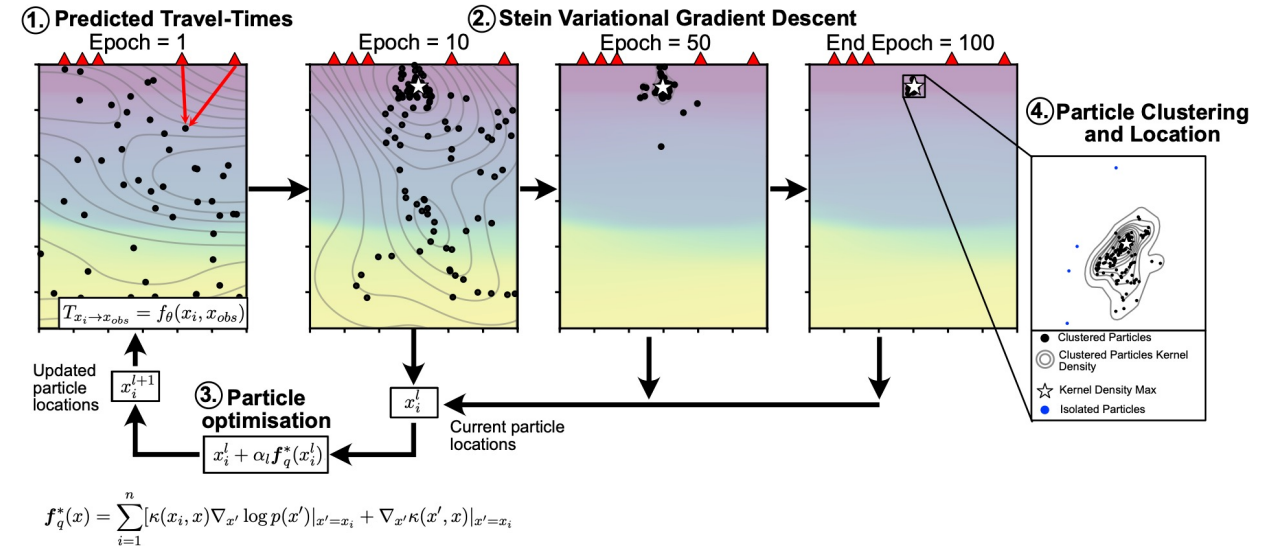
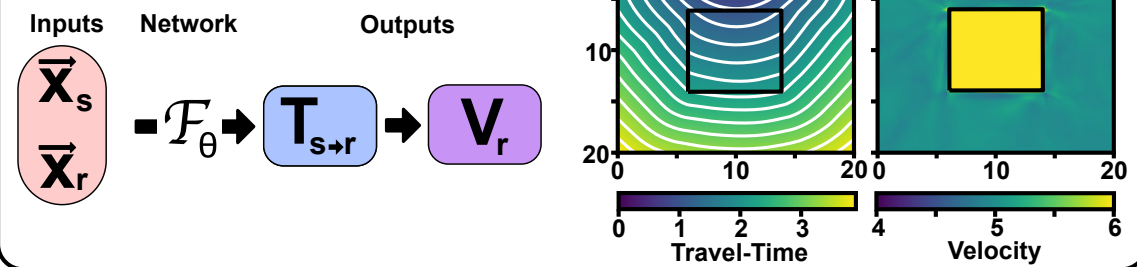
Jonathan D. Smith¹, Zachary E. Ross¹, Kamyar Azizzadenesheli^{1,2} and Jack Muir¹

1. California Institute of Technology, Pasadena, CA, USA. 2. Purdue University, West Lafayette, IN, USA

EikoNet - Physics Informed Neural Network (PINN)



Trained EikoNet



Computationally efficient earthquake location procedure leveraging a machine learning Physics informed solution to the factored Eikonal equation and a stein variational gradient descent method to determine hypocentral location and location uncertainty.

Email: jdsmith@Caltech.edu

Github: <https://github.com/Ulvetanna/EikoNet>
<https://github.com/Ulvetanna/HypoSVI>