

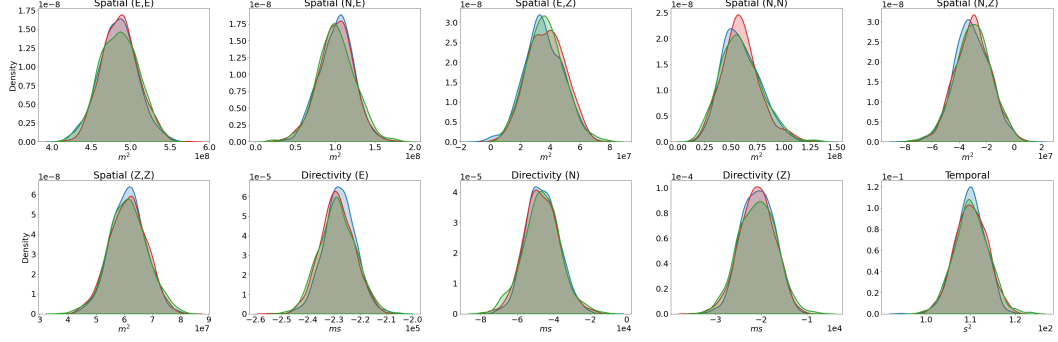
1 **Supplementary Figures**

Figure S1. Kernel density estimate plots for multiple chains describing the distributions of independent components of the second moments of the stress glut for the 2020 Caribbean earthquake. Different colors (blue, red, and green) represent different chains of the inversion.

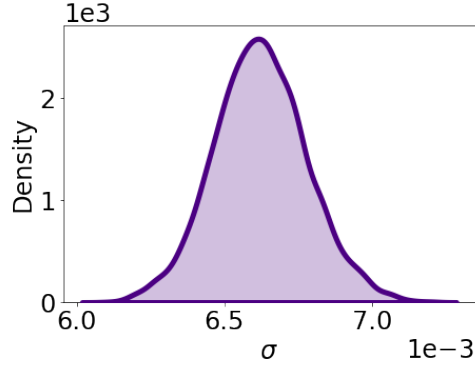


Figure S2. Distribution of hyperparameter σ determined in the inversion using real data and included in the inversion using synthetic data.