This dataset contains:

- geodetic data from the 2014 Napa Valley earthquake, as well as other files required by the slip inversion code, slipBERI

- a script that creates the structures required for the slip inversion code, slipBERI

- model runs, showing the slip inversion solutions as seen in the associated PhD thesis and Amey et al. 2018 (see below)

The GPS and InSAR data are provided by the authors of this paper:

Floyd, M. A., et al. (2016) Spatial variations in fault friction related to lithology from rupture and afterslip of the 2014 South Napa, California, earthquake. Geophys. Res. Lett., 43, doi: 10.1002/2016GL069428

As stated in this paper: EarthScope Plate Boundary Observatory continuous GPS data were provided by UNAVCO through the GAGE Facility with support from the National Science Foundation (NSF) and National Aeronautics and Space Administration (NASA) under NSF Cooperative Agreement EAR-1261833. Bay Area Regional Deformation (BARD) and other continuous GPS data were provided the Berkeley Seismological Laboratory and the USGS. Additional GPS data collection support was provided by the USGS Earthquake Hazards Program.

With InSAR from the InSARAP project: http://insarap.org/

The slip inversion solutions and full description of the method are described in this paper:

Amey, R. M. J., Hooper, A., & Walters, R. J. (2018). A Bayesian method for incorporating self-similarity into earthquake slip inversions. Journal of Geophysical Research: Solid Earth, 123.

Note that the Laplacian solution in the JGR paper and the PhD thesis are slightly different. In the JGR paper it was formulated such that only the bottom was a free edge and the solution is forced to 0 at all other edges, whereas in the PhD thesis it was set up that all edges are free.