

University of Colorado Boulder



¹Cooperative Institute for Research in Environmental Sciences, ²Dept of Geological Sciences, University of Colorado Boulder, ³Colorado Center for Astrodynamics Research, ⁴Dept of Civil, Environmental, and Architectural Engineering, University of Colorado Boulder, ⁵Western Water Assessment, University of Colorado Boulder

Background and Research Goals

aquiters.

Ihis project aims

executed in Matlab.

seismicity changes, rate explore behavior on various scales through time.



Modeling the Relationship Between Changing Terrestrial Water Storage and Seismicity ^{1,2}Quelyn Bekkering, ^{1,2}Kristy F. Tiampo, ^{1,3}R. Steven Nerem, ^{1,4,5}Ben Livneh



Figure 5 (below). Earthquake event magnitude plotted through time.



- signals.
- Pair Model stress change.

[2] Wiemer, S., 2001. A software package to analyze seismicity: ZMAP. Seismological Letters, Research 72(3), pp.373-382 https://doi.org/10.1785/gssrl.72.3.373





Magnitude through Time

Future Work

Investigate and account for seismic data that are the result of the tectonic setting rather than seasonal and TWS change

GRACE small-scale and data hydrologic data sets to better understand TWS on earthquake occurrence.

References

[1] U.S. Geological Survey, Earthquake Hazards Program, 2017, Advanced National Seismic System (ANSS) Comprehensive Catalog of Earthquake Events and Products: Various, https://doi.org/10.5066/F7MS3QZH.