



UCERF3 Progress

Kevin Milner

CME Meeting, SCEC Annual Meeting

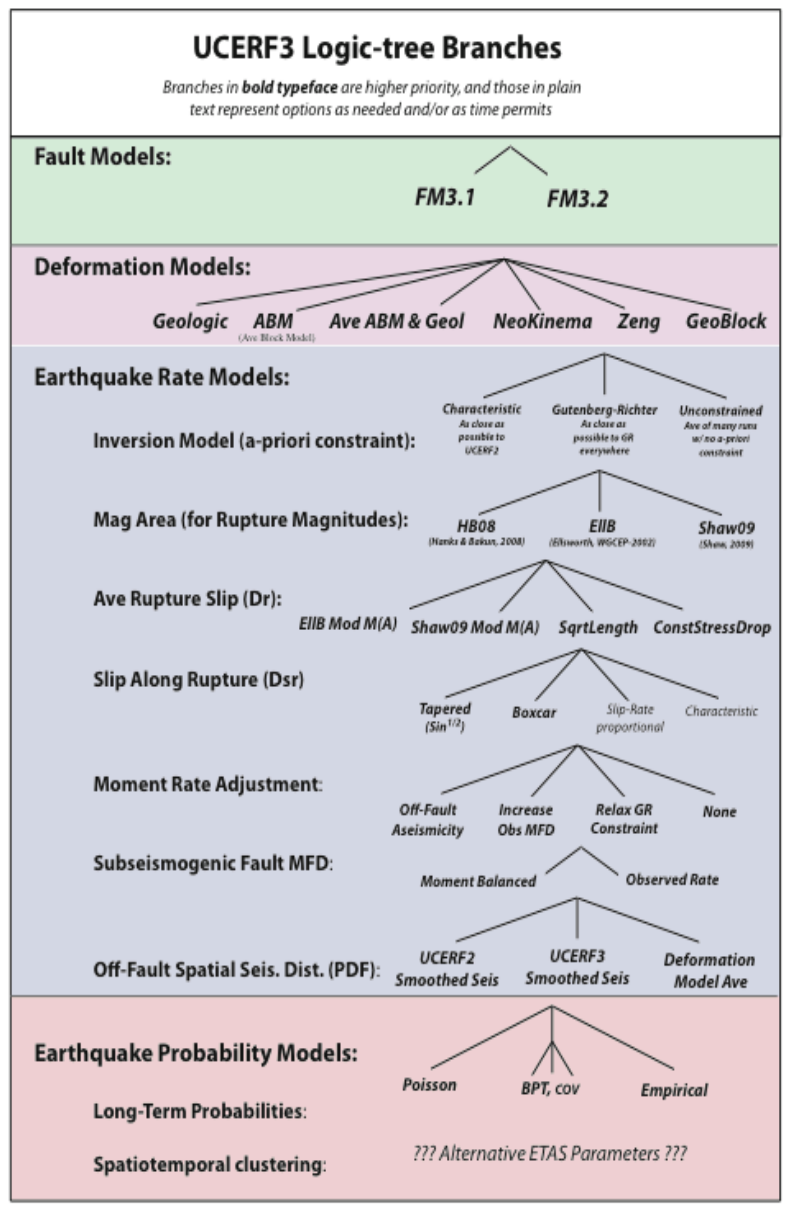
September 9, 2012

Project Timeline

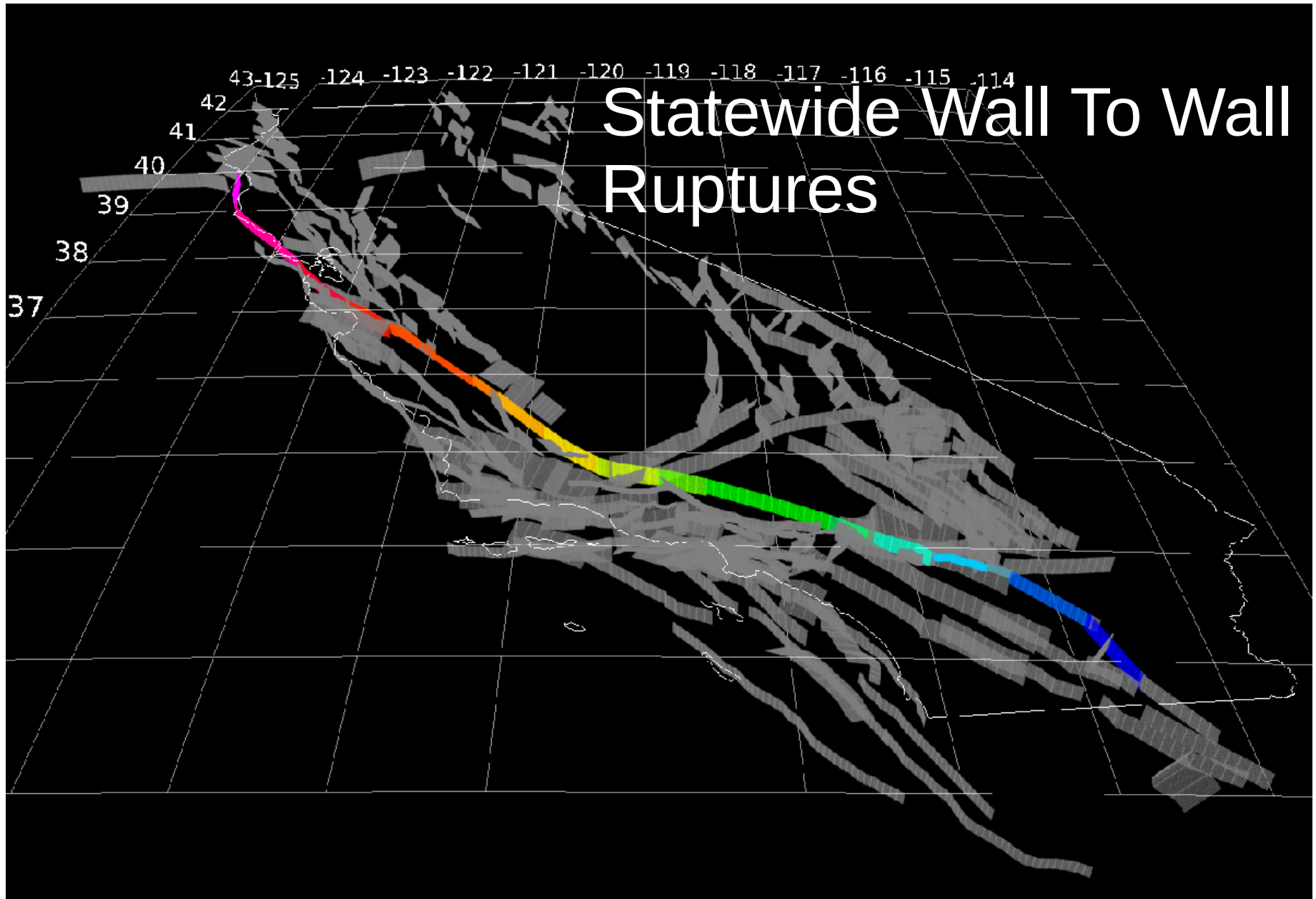
- **March 31, 2012 - Preliminary UCERF3 Model**
- **April 30, 2012 - Review of Preliminary UCERF3 Model**
- **June 30, 2012 - “Final” UCERF3 Model**
- **Ongoing - End-to-end review of UCERF3 methodology and key components**
- **October 17, 2012 - Produce time-independent UCERF3 model for 2013 update of NSHMP**
- **ASAP - Implement and validate long-term, time-dependent components (empirical model and elastic rebound)**
- **ASAP - Implement short-term component (spatiotemporal clustering)**



UCERF3 Components



CyberShake Implications/Challenges



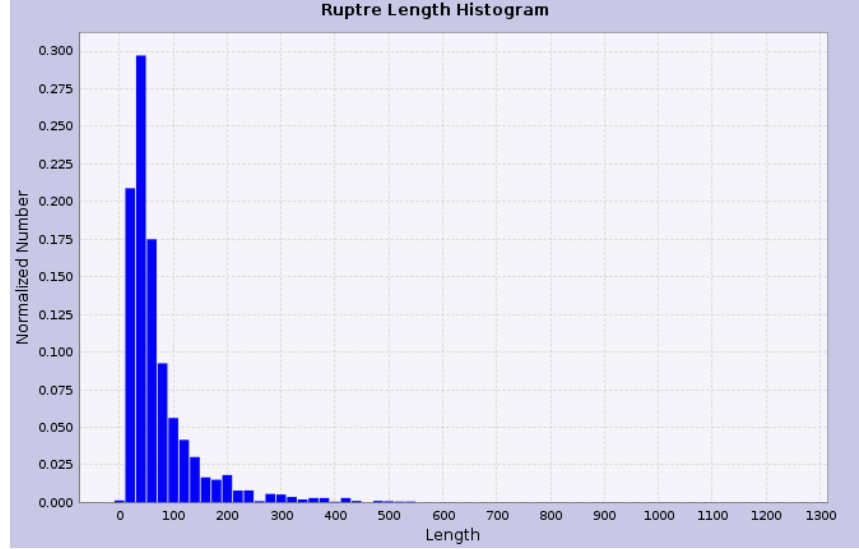
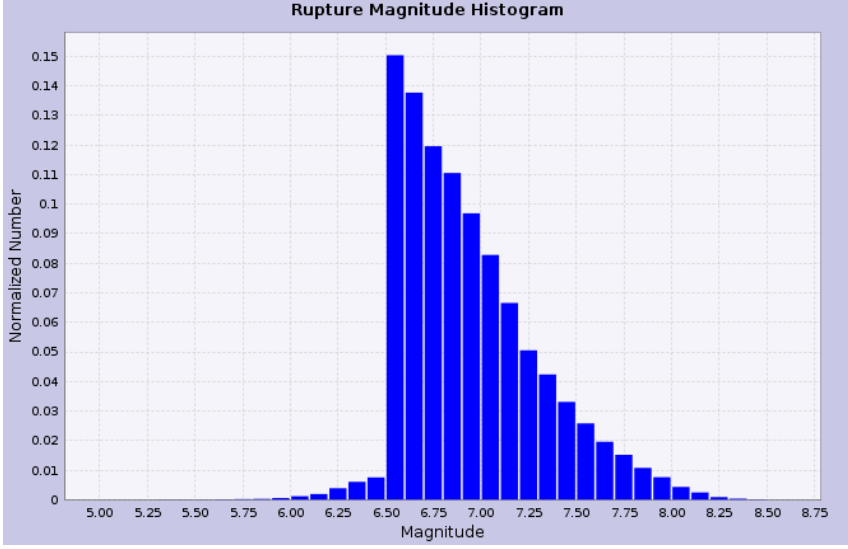


CyberShake Implications/Challenges

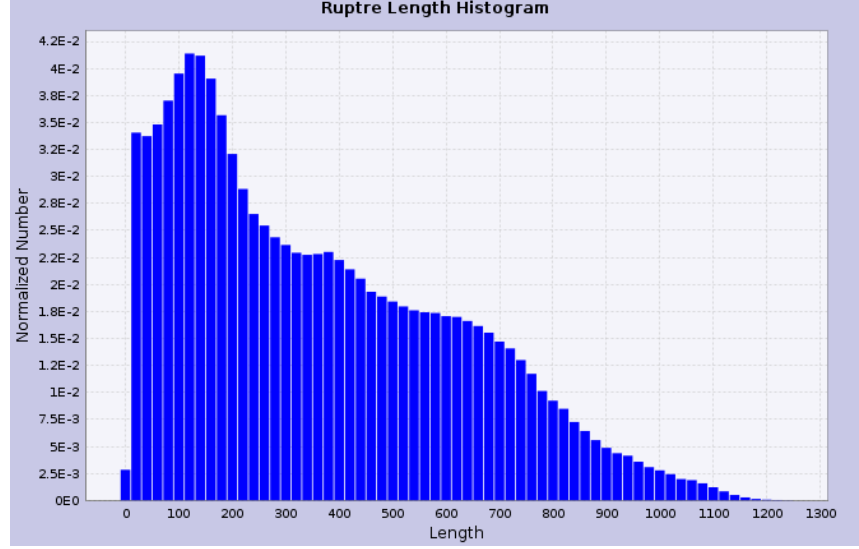
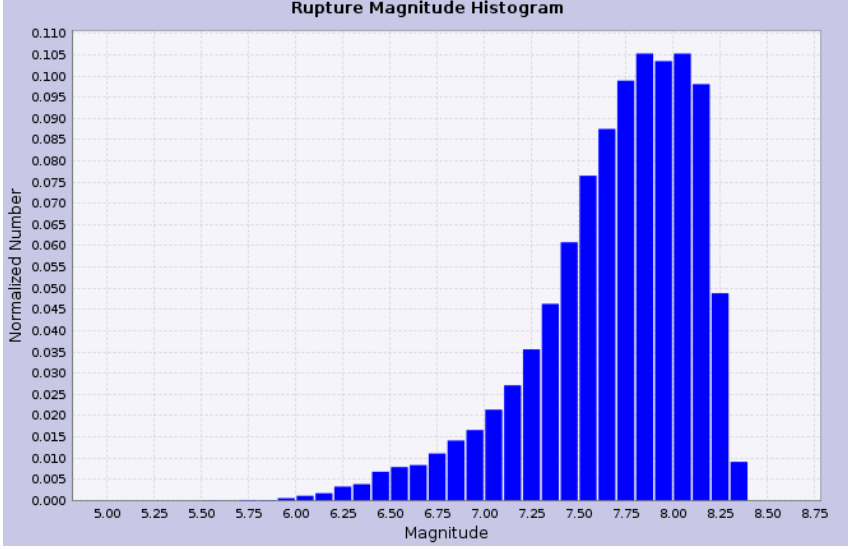
Magnitude Histograms

Length Histograms

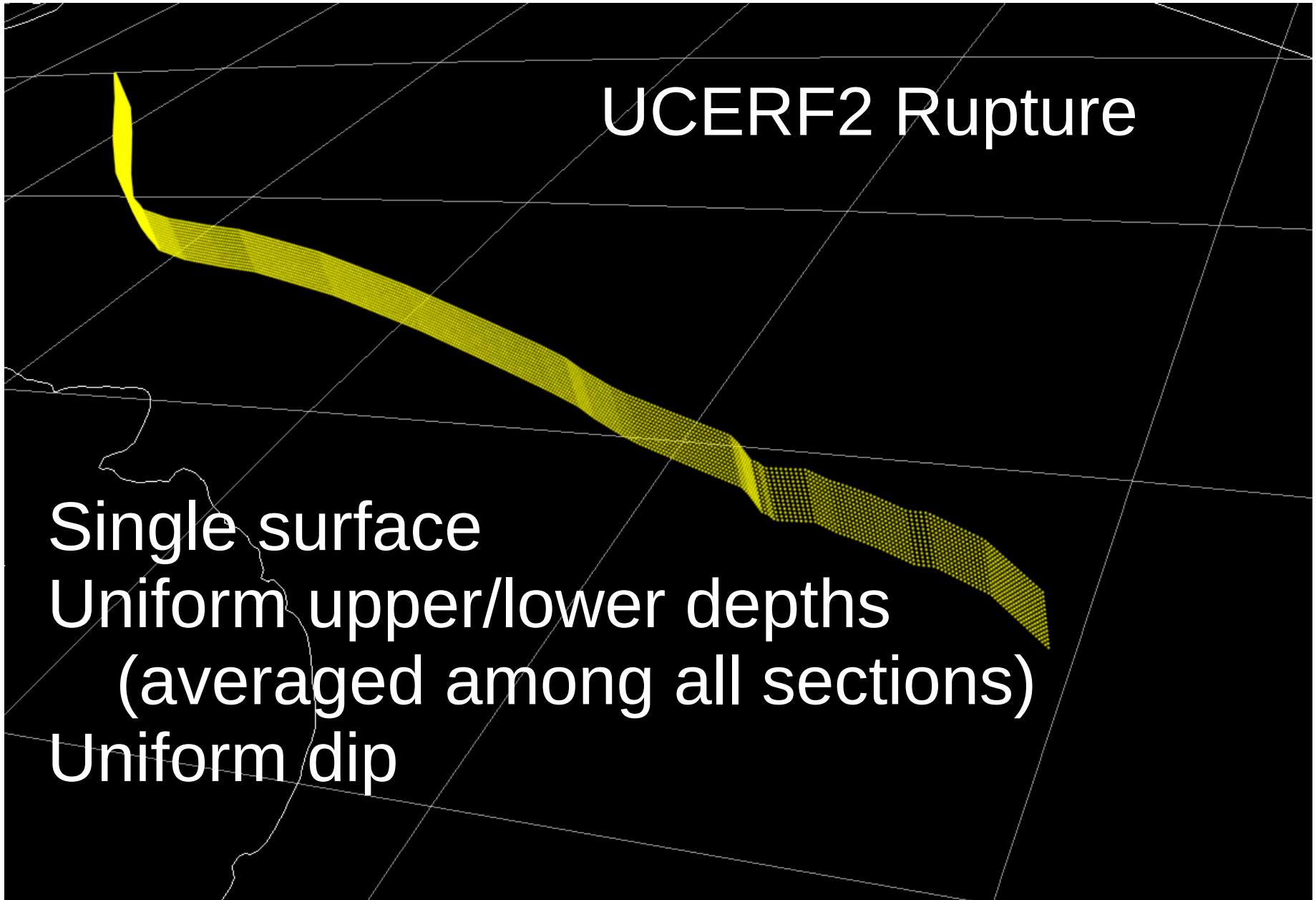
UCERF2



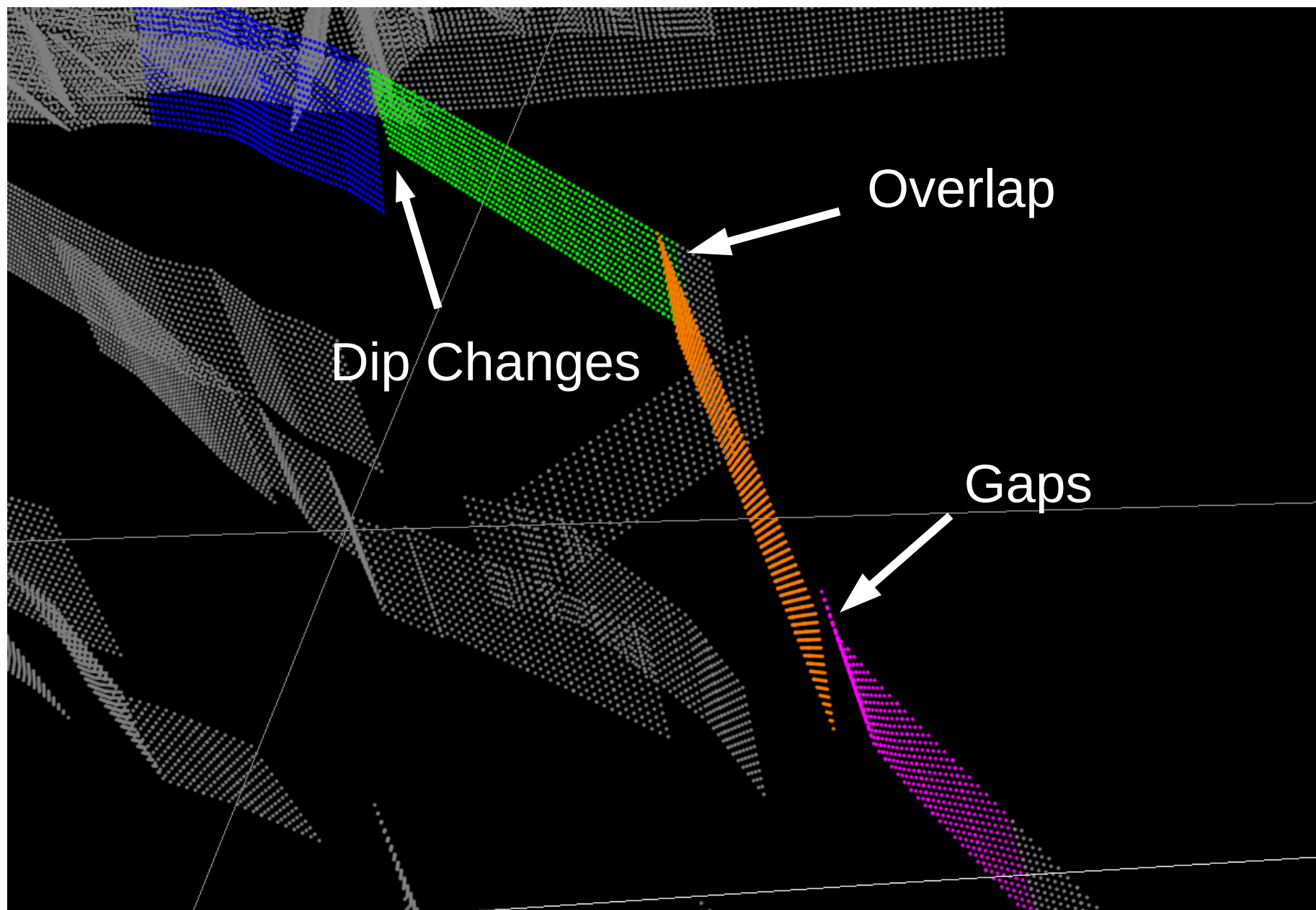
UCERF3



CyberShake Implications/Challenges



CyberShake Implications/Challenges



CyberShake Path Forward Before Final UCERF3

- **Test rupture generator with small UCERF3 multi fault rupture**
- **Test rupture generator/SGT calculation with wall to wall UCERF3 rupture (or decide on other way to deal with them)**
- **Test CyberShake calculation with preliminary rupture set and rates (tests computational demands of many, large ruptures)**