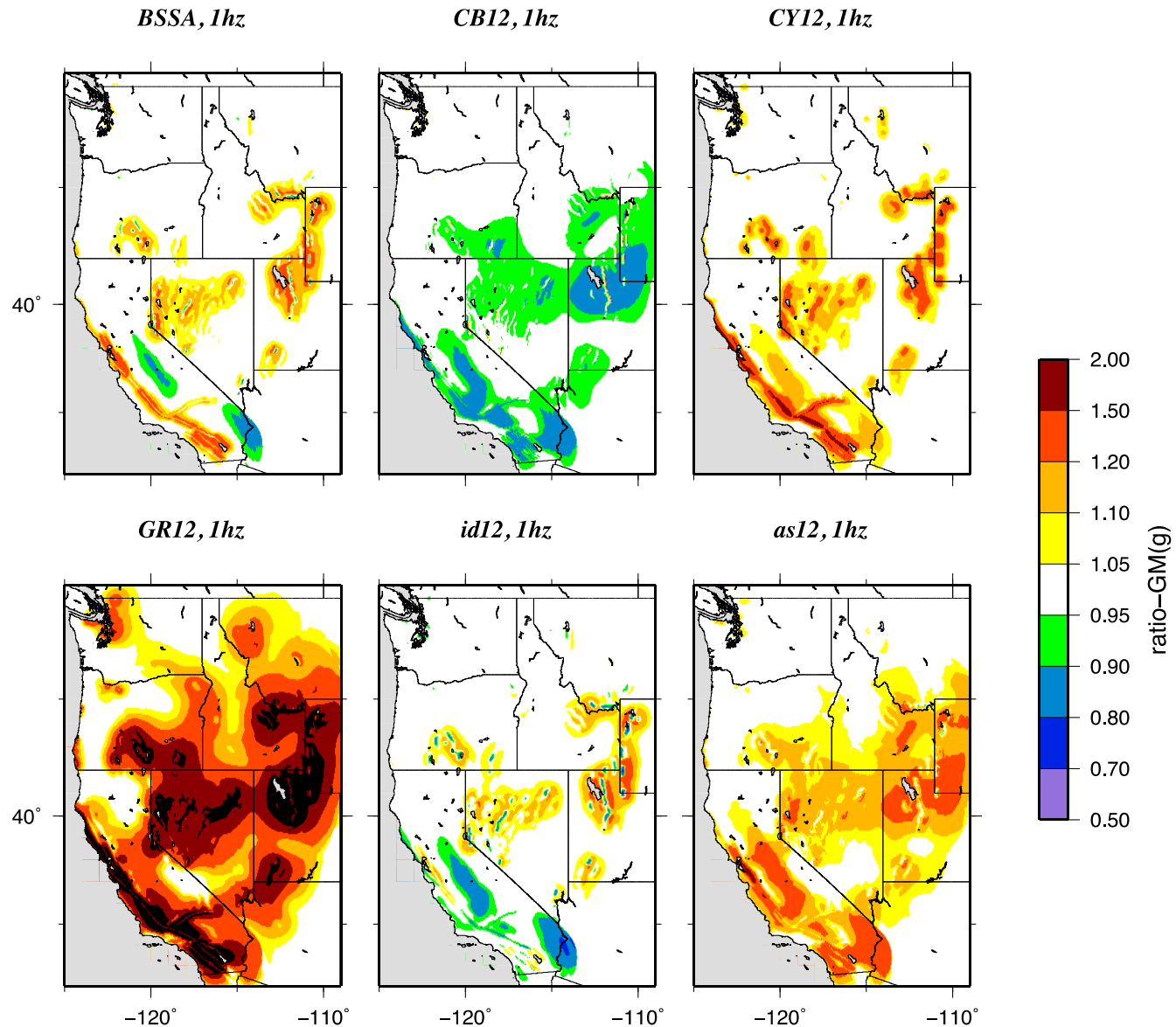
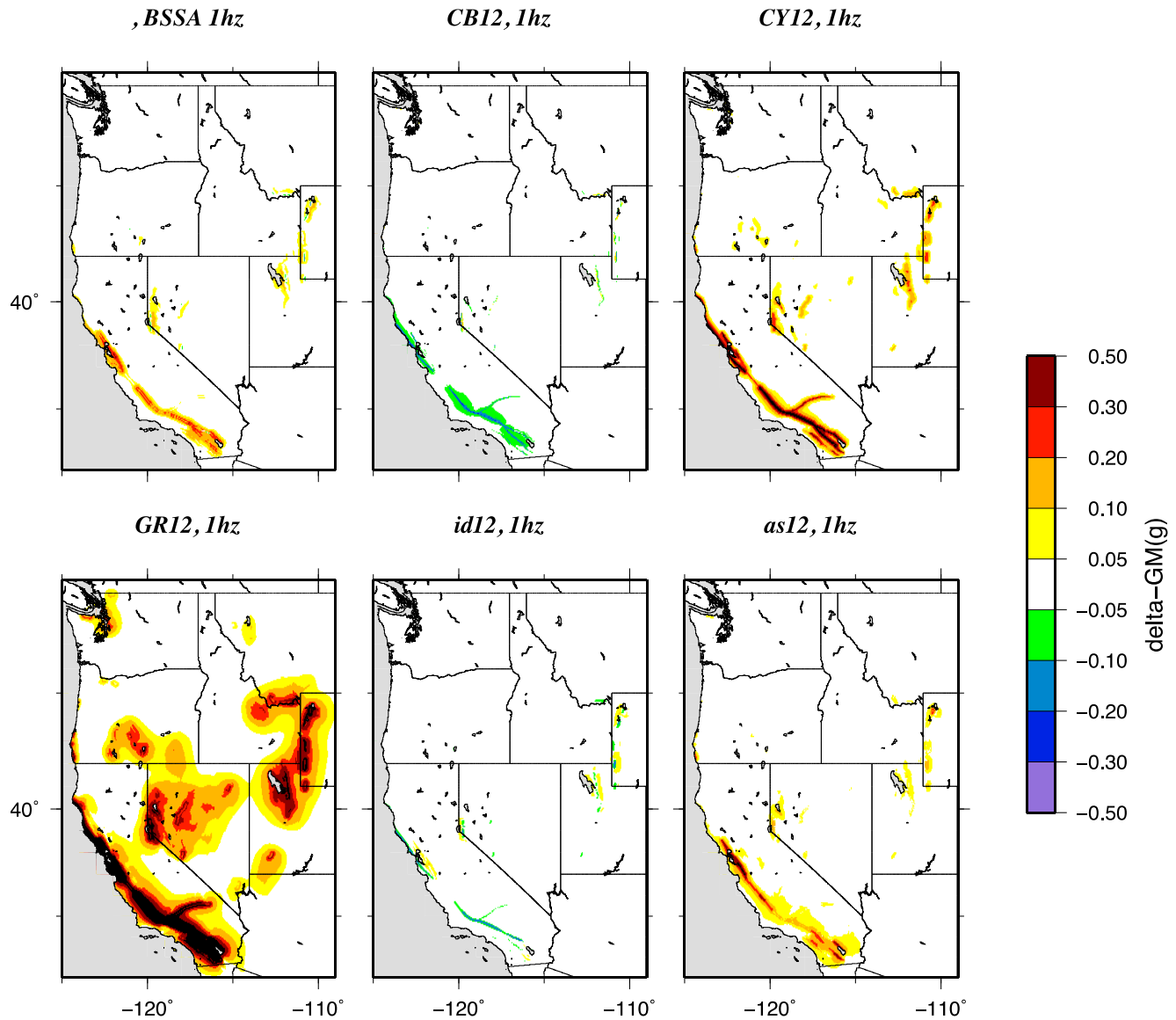


Sensitivity for WUS ground motion models

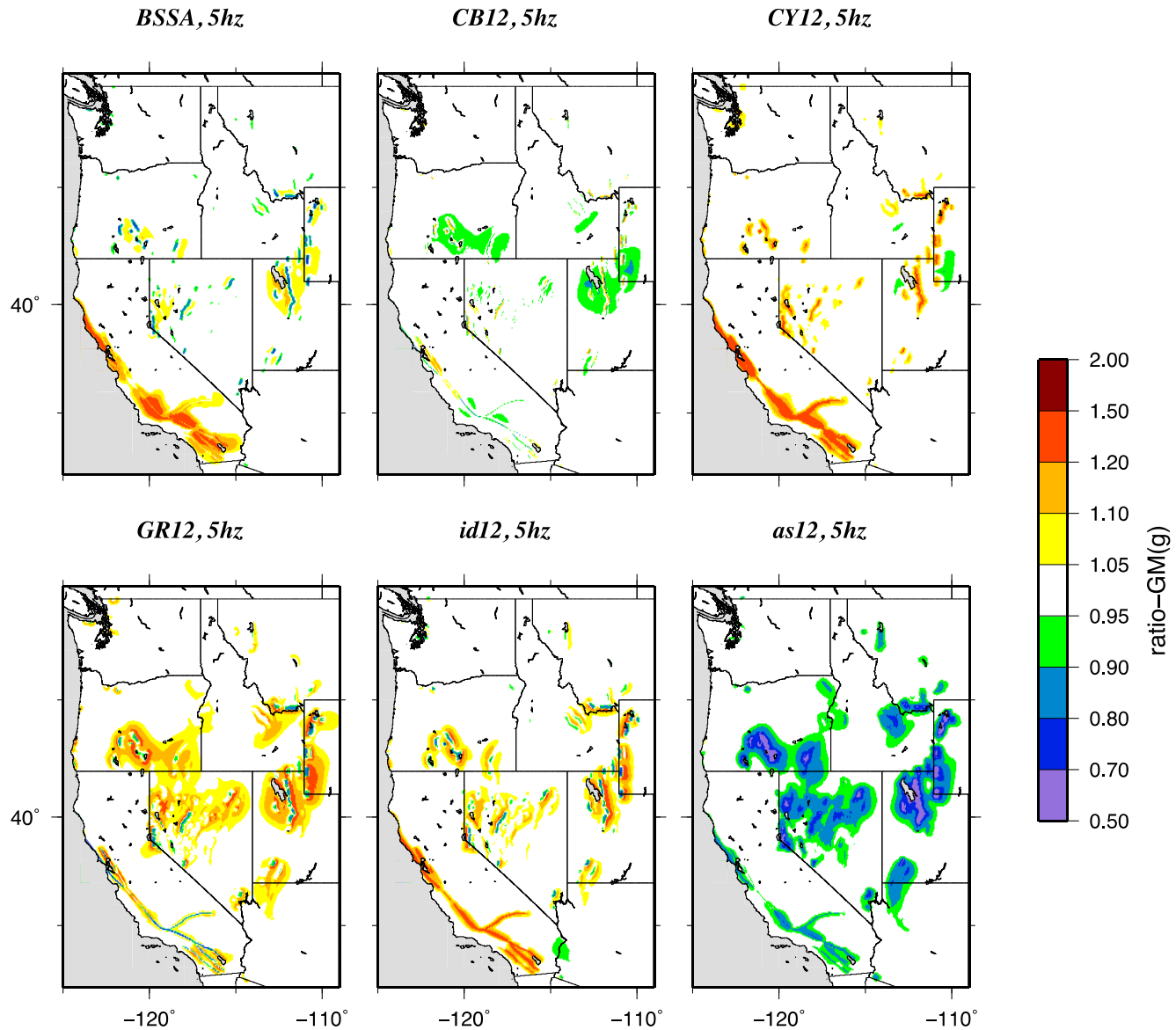
GMPE ratios 1hz over 2008 model



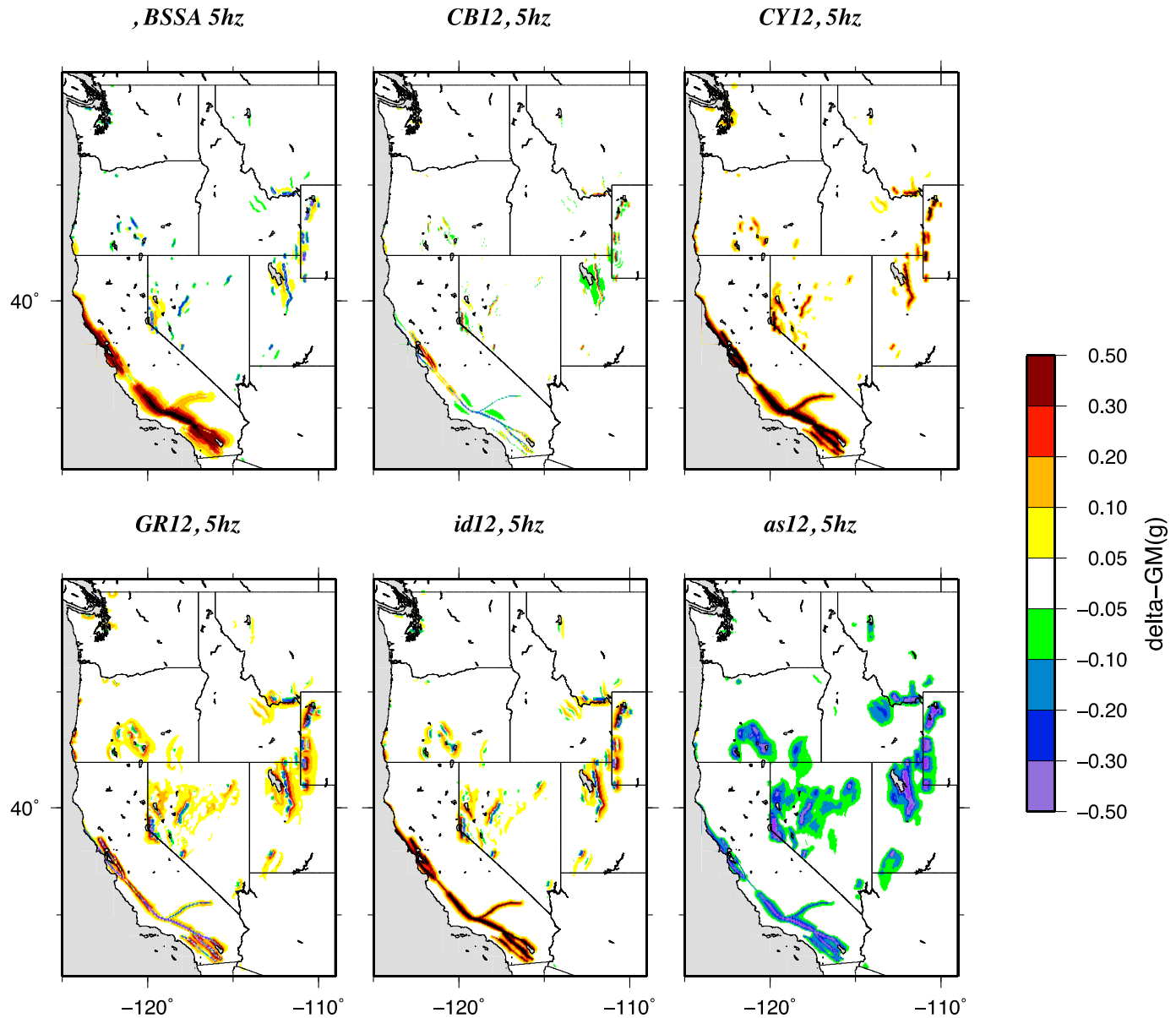
GMPE diff 1 hz wrt 2008



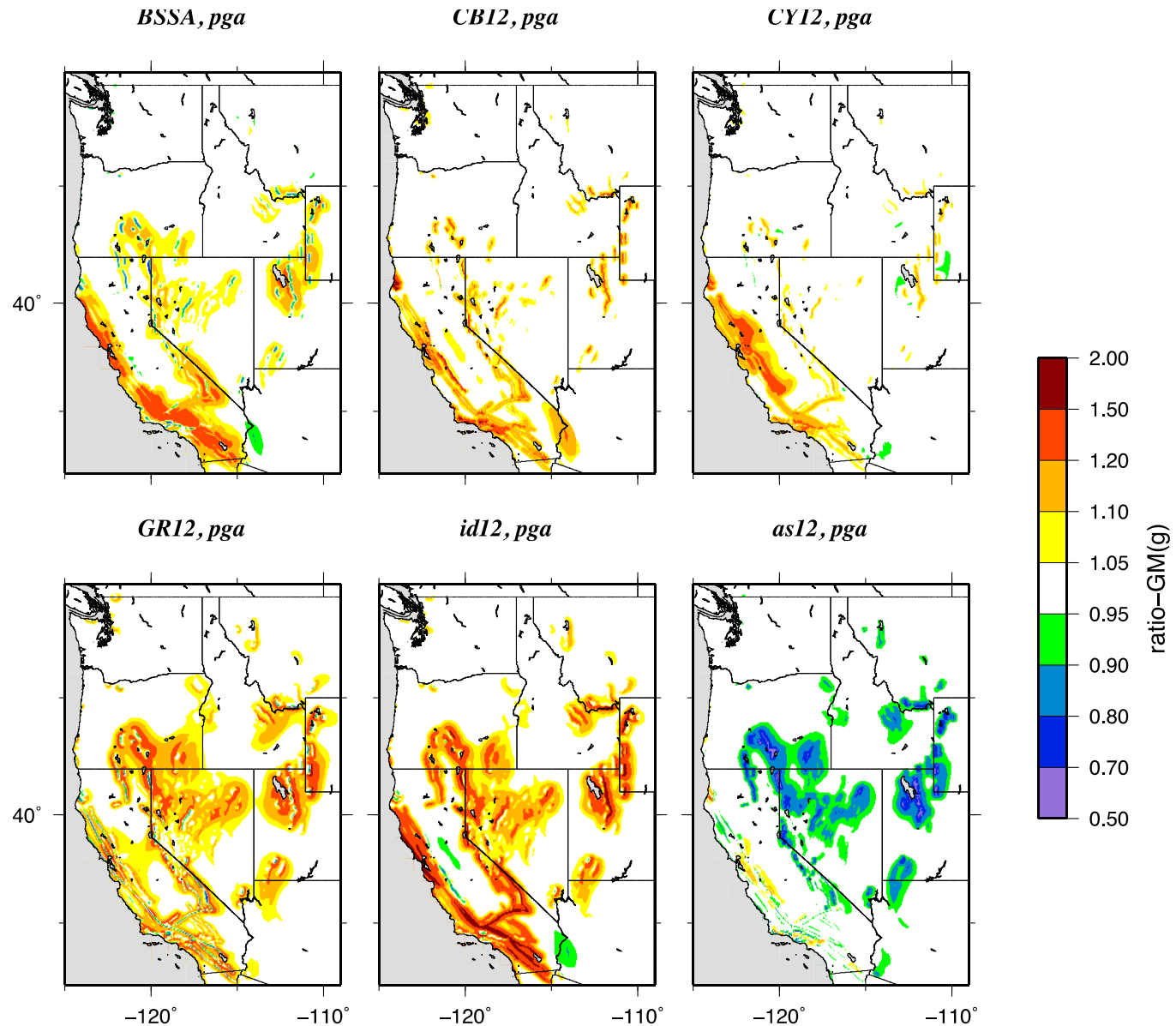
GMPE ratios 5hz over 2008 model



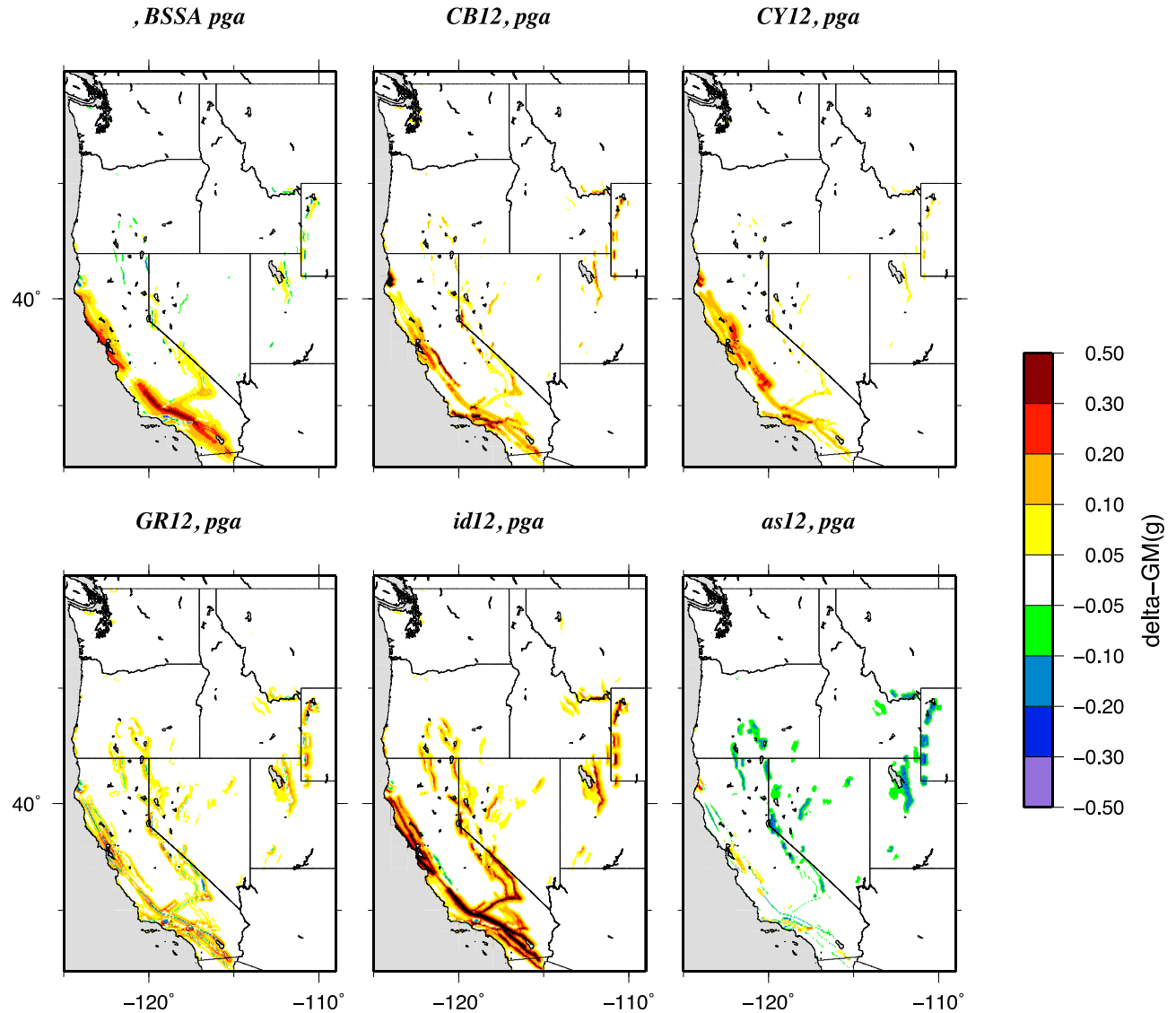
GMPE diff 5 hz wrt 2008



GMPE ratios PGA over 2008 model

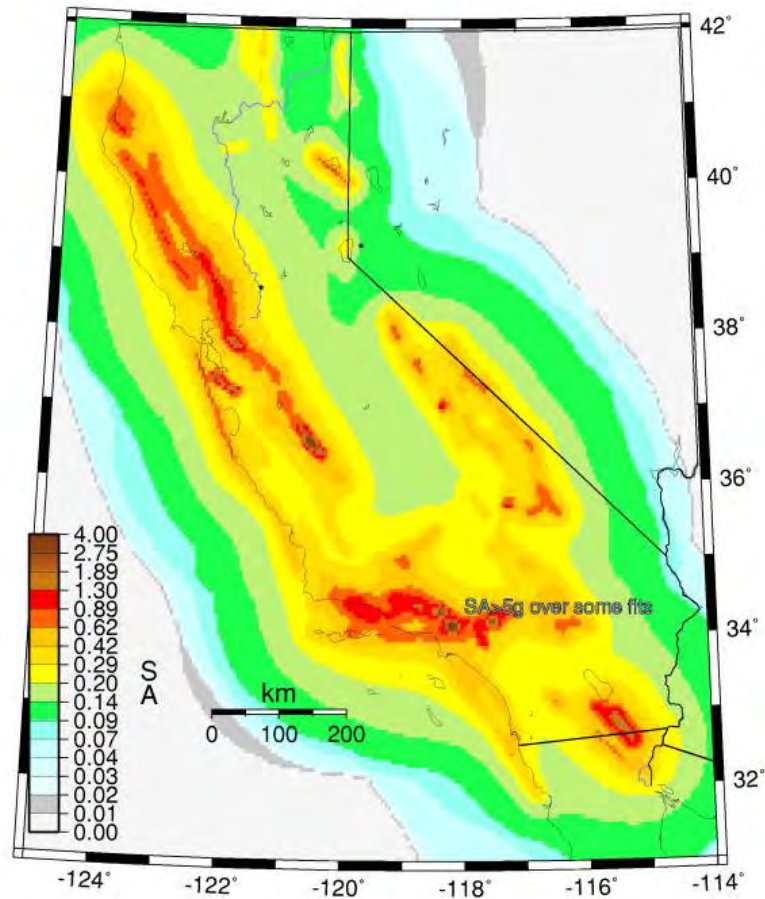


GMPE diff pga wrt 2008



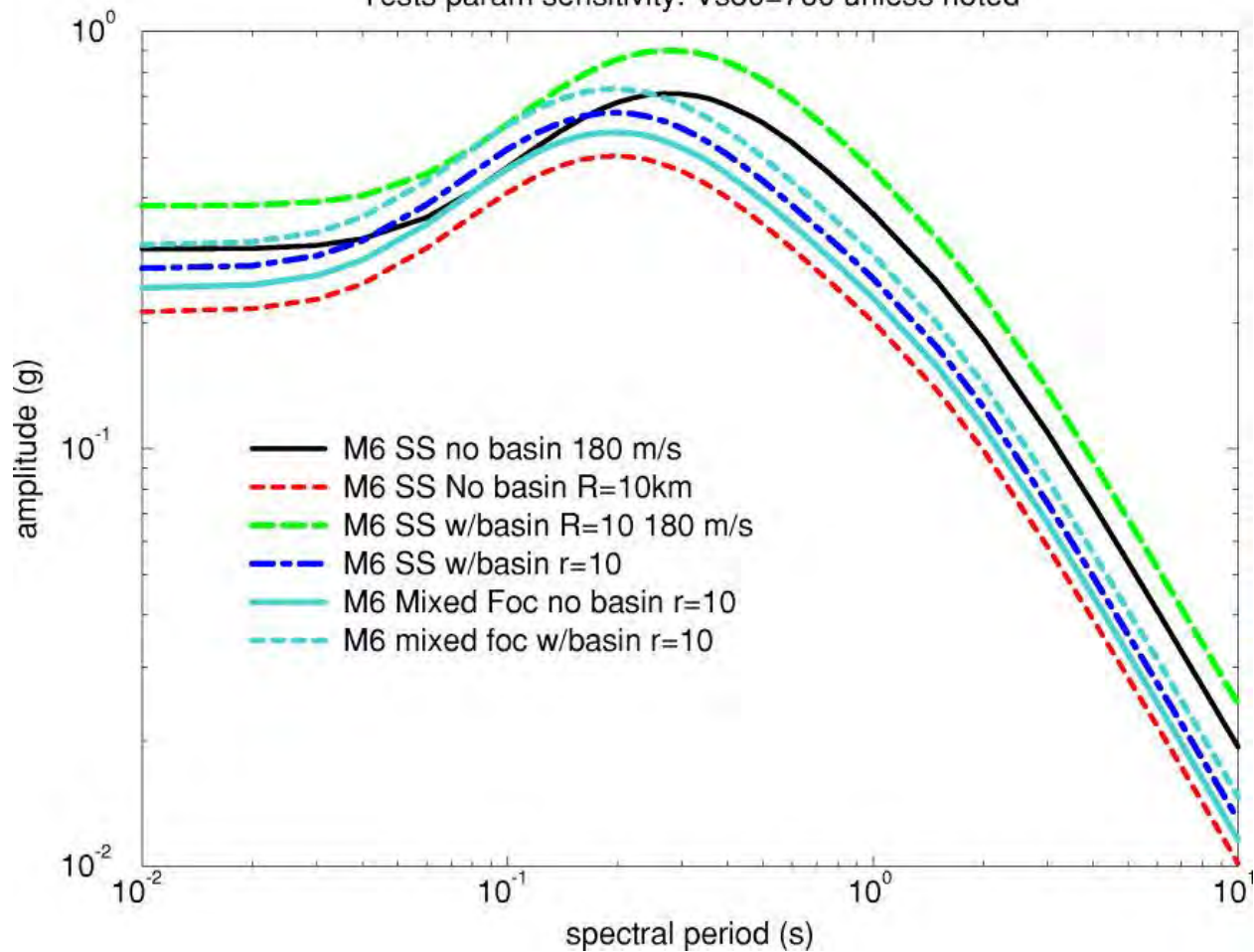
Abrahamson and Silva

Abrahamson-S12 SA for period 1 s., bFaults



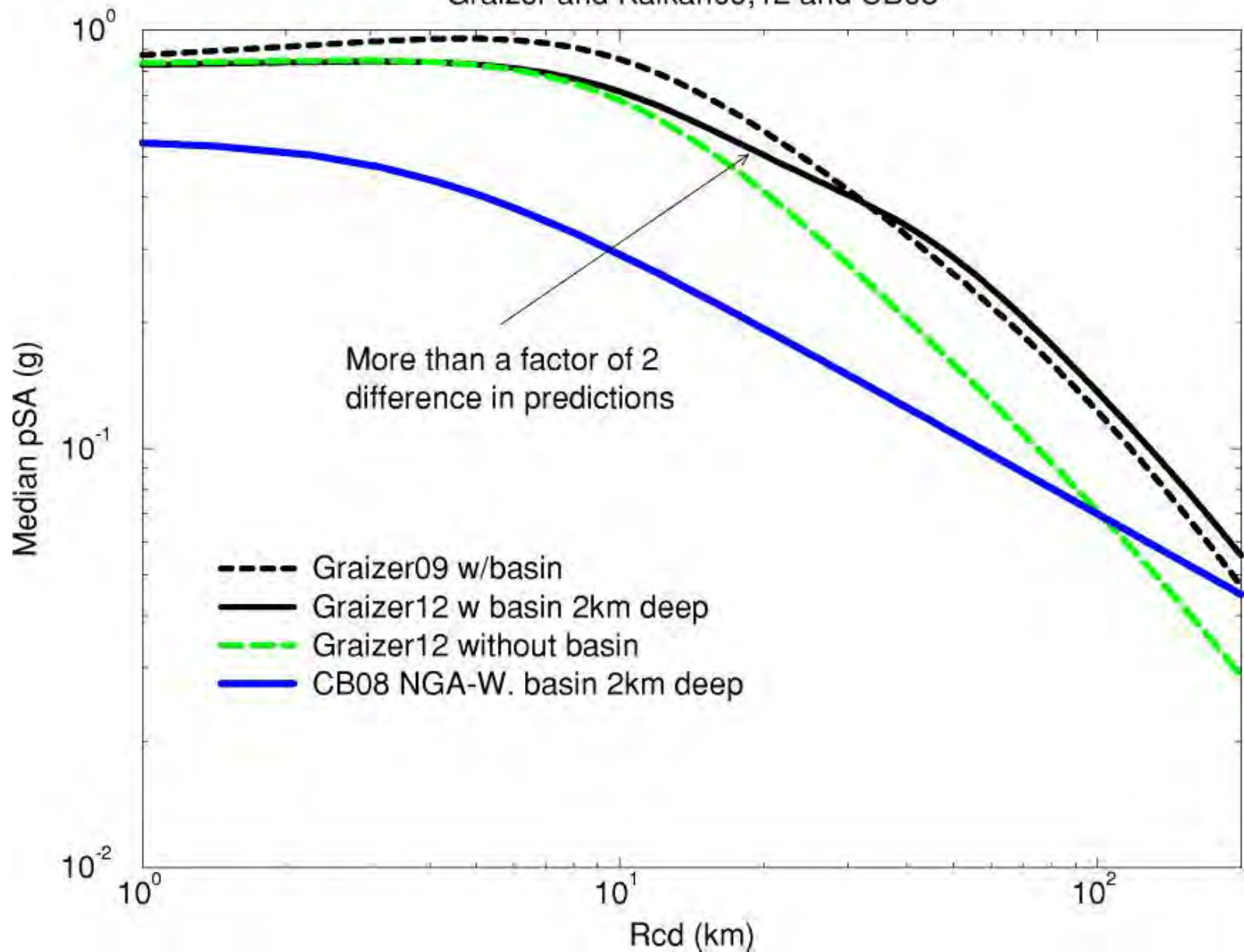
Graizer and Kalkan 2009

Tests param sensitivity. Vs30=760 unless noted



Compare 1s medians for M8 SS src. 760 site

Graizer and Kalkan09,12 and CB08



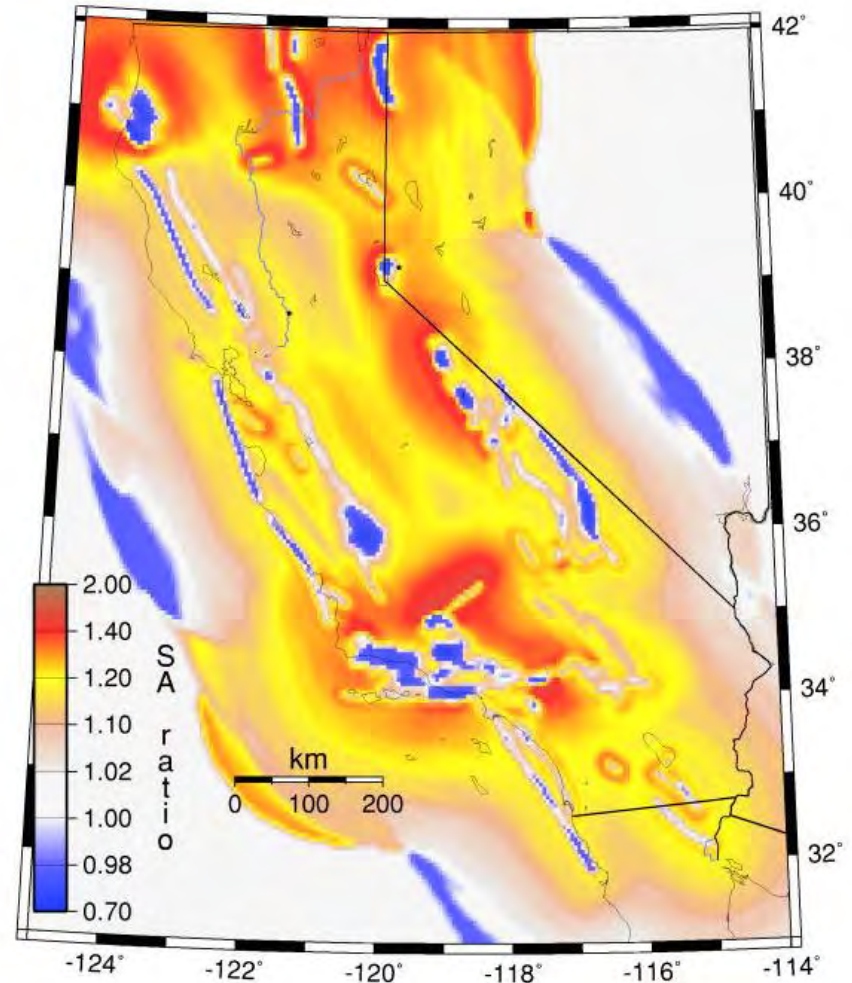
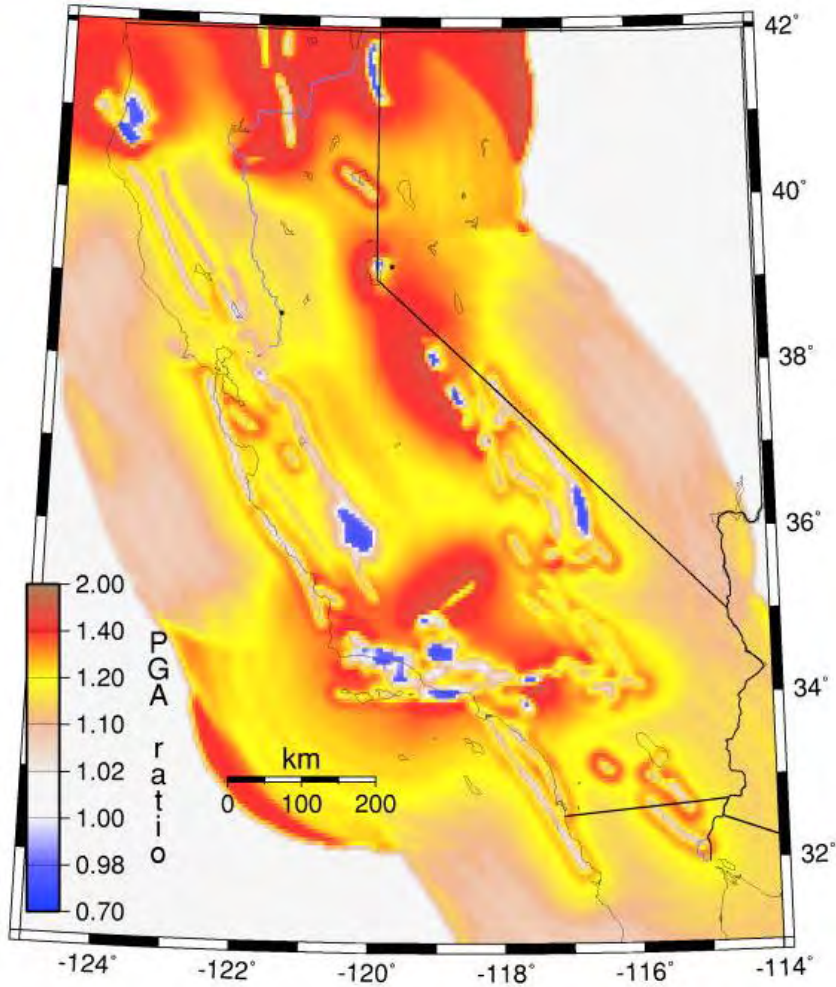
Conclusions

- Major increases in GM over faults for 1 hz

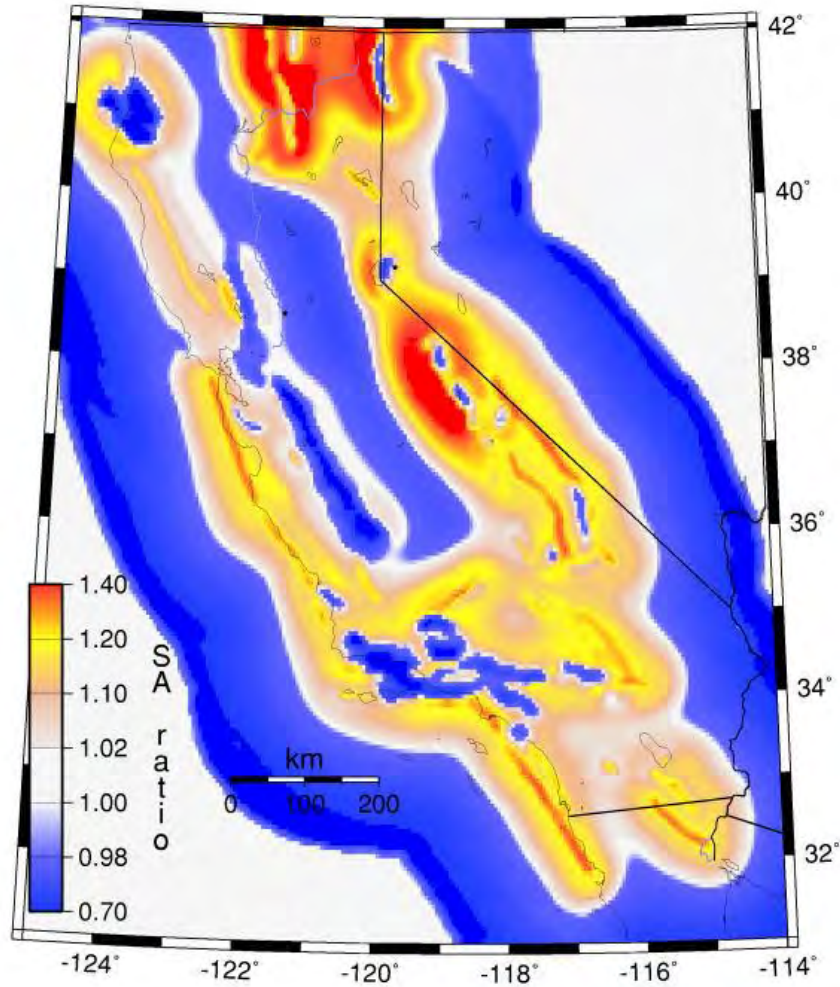
Graizer and Kalkan

Graizer-K12/NSHMP2008 PGA ratio, bFaults

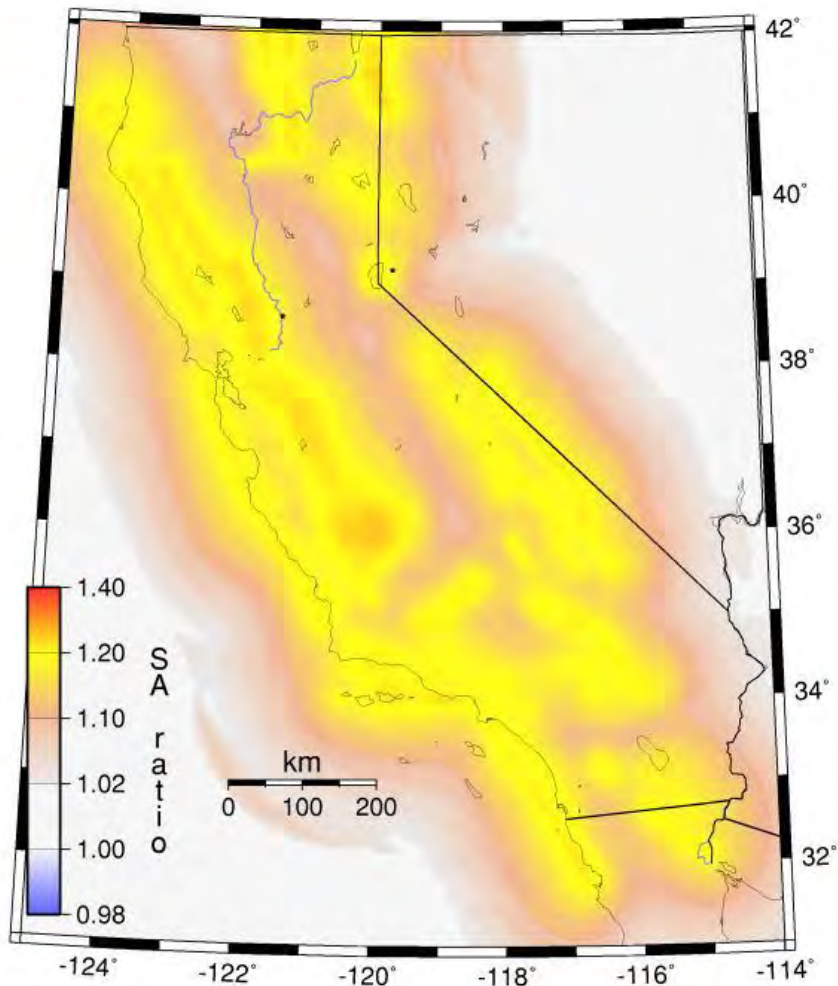
Graizer-K12/NSHMP2008 5-hz SA ratio, bFaults



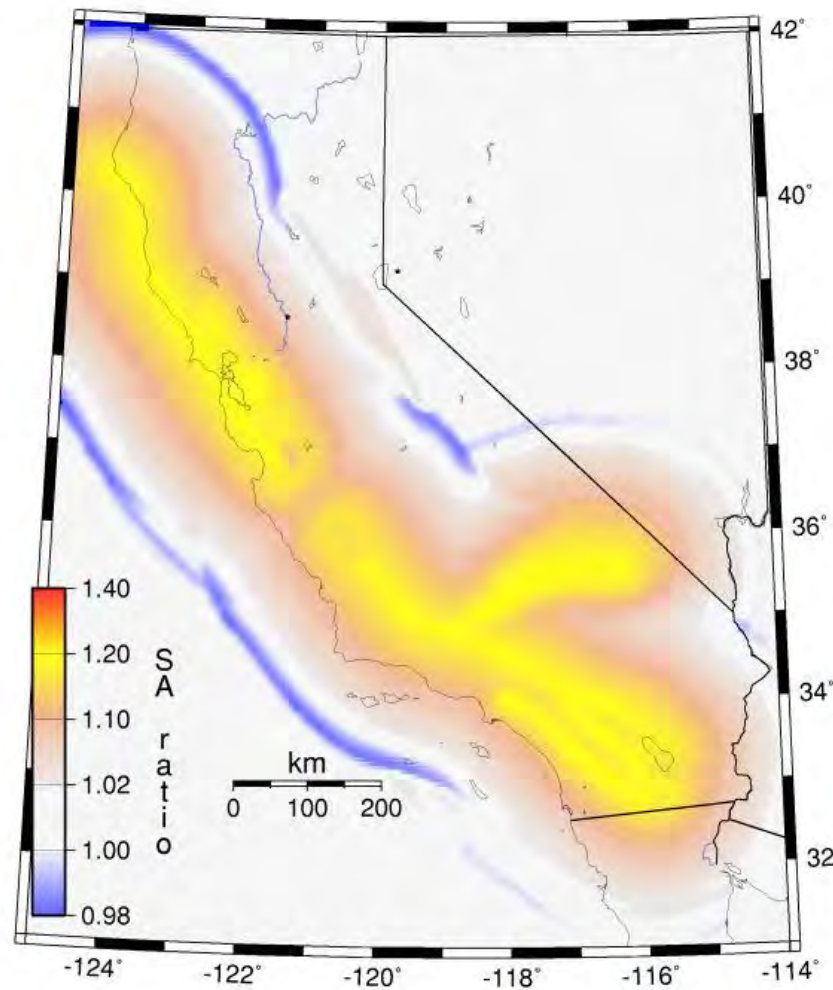
Idriss12/CB12 5-hz SA ratio, bFaults



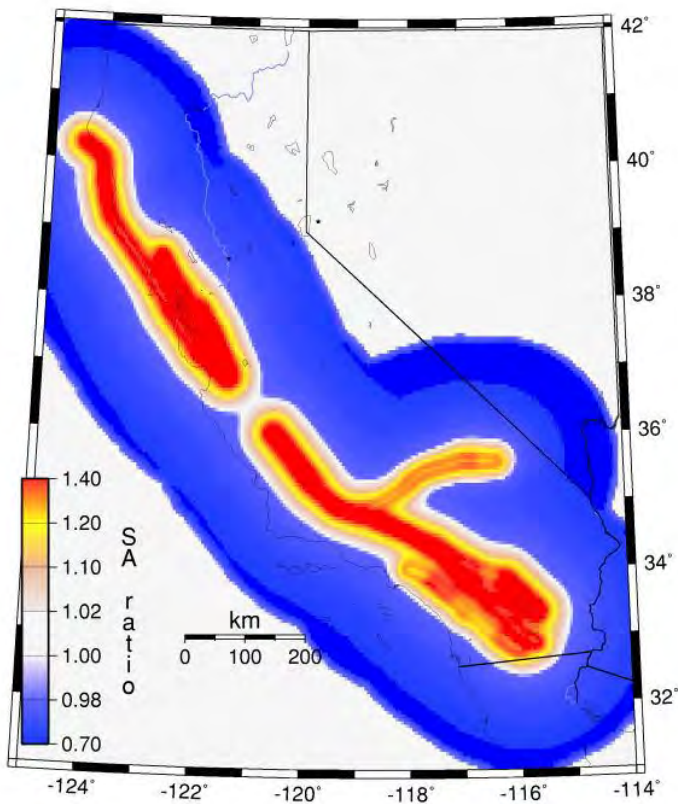
CY12/CY08 5-hz SA ratio, bFaults



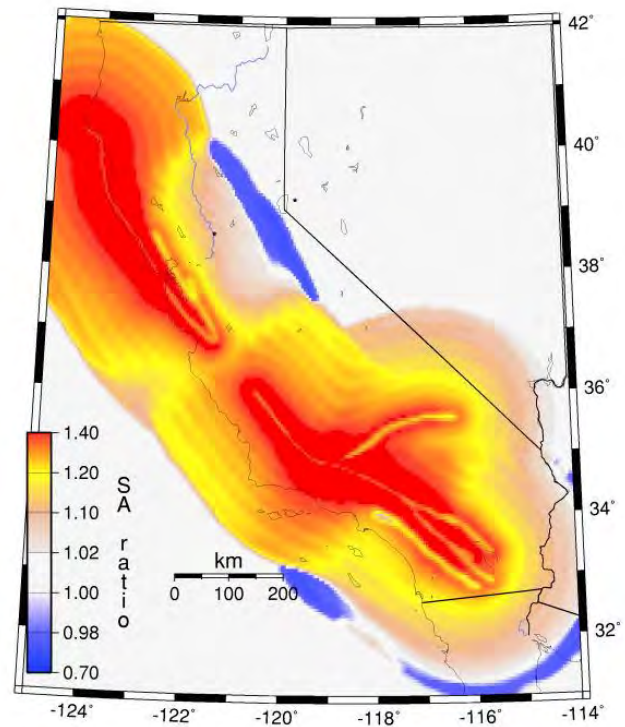
CY12/CY08 5-hz SA ratio, aFaults



BSSA12/BA08 1hz SA ratio, aFaults

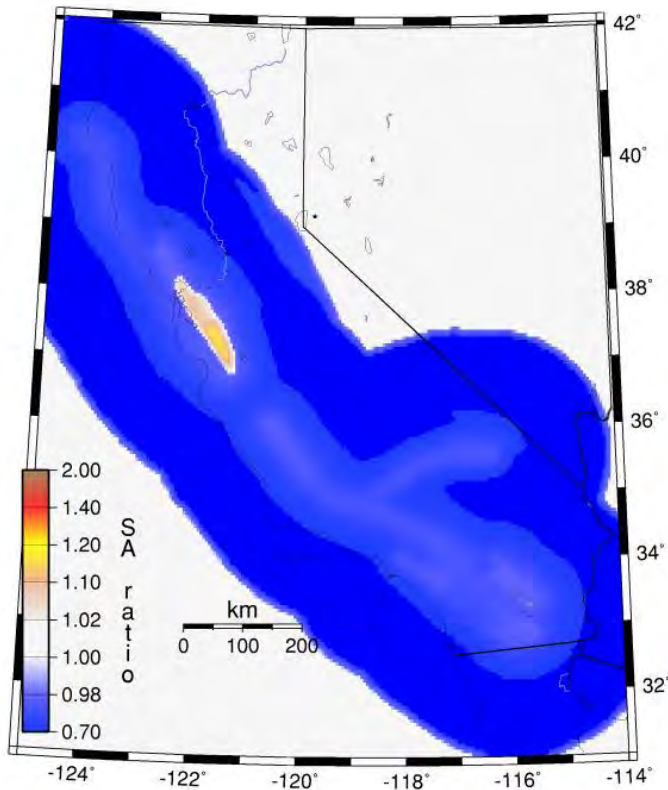


BSSA12/BA08 5hz SA ratio, aFaults

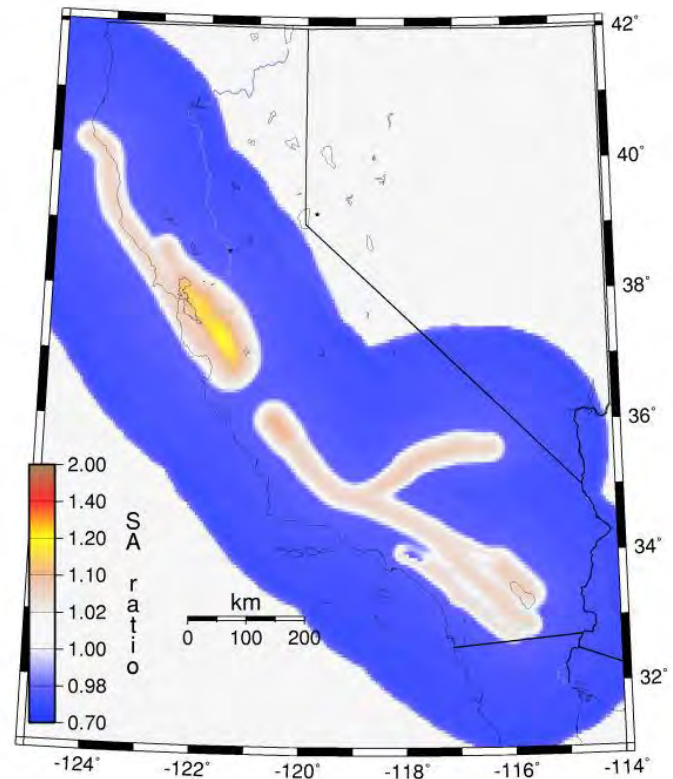


Campbell and Bozorgnia

CB12/CB08 1hz SA ratio, aFaults

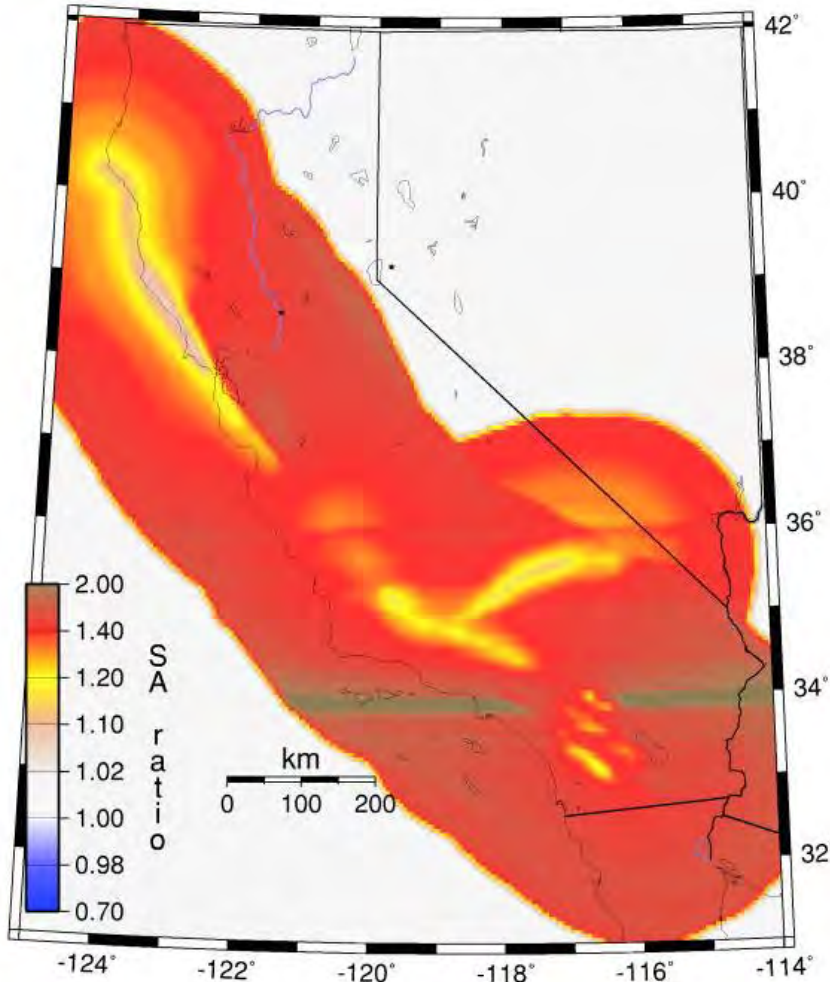


CB12/CB08 5hz SA ratio, aFaults

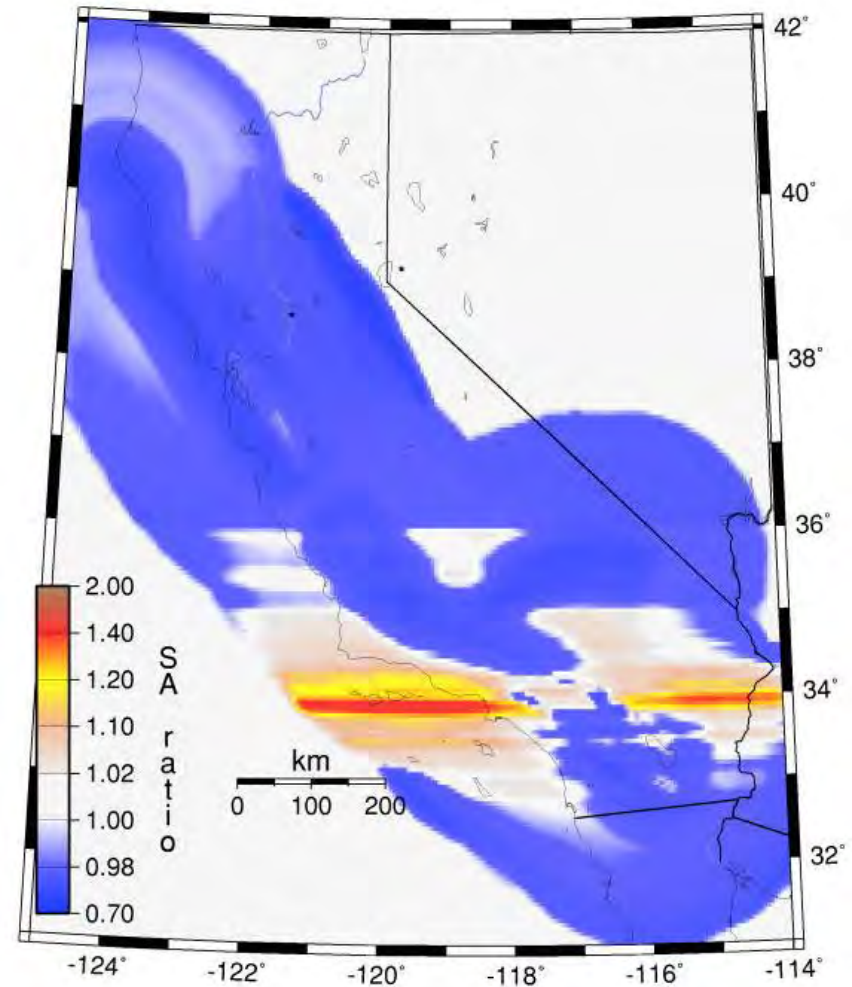


Abrahamson and Silva

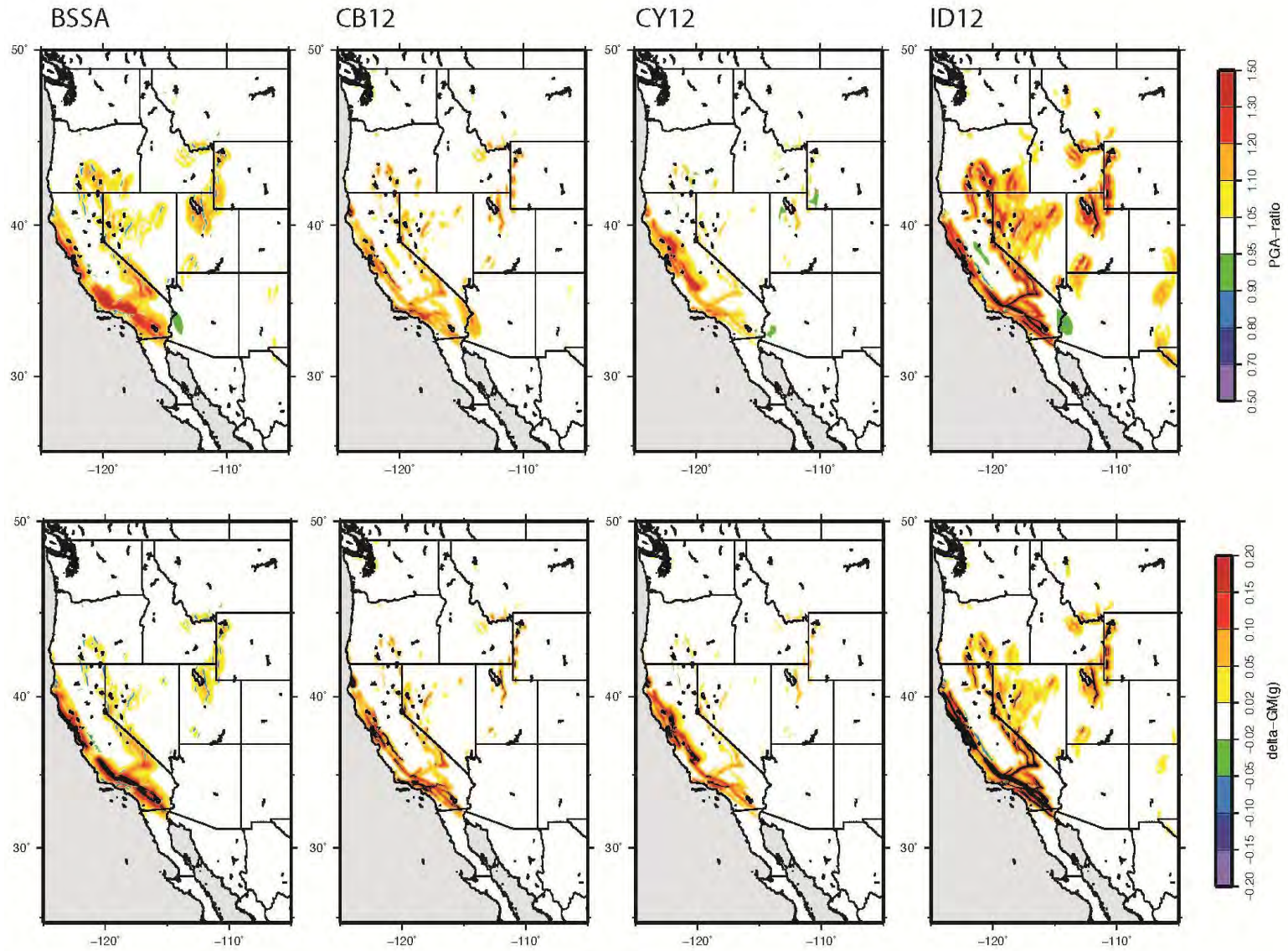
Abrahamson-Silva12/2008 1hz SA ratio, aFaults



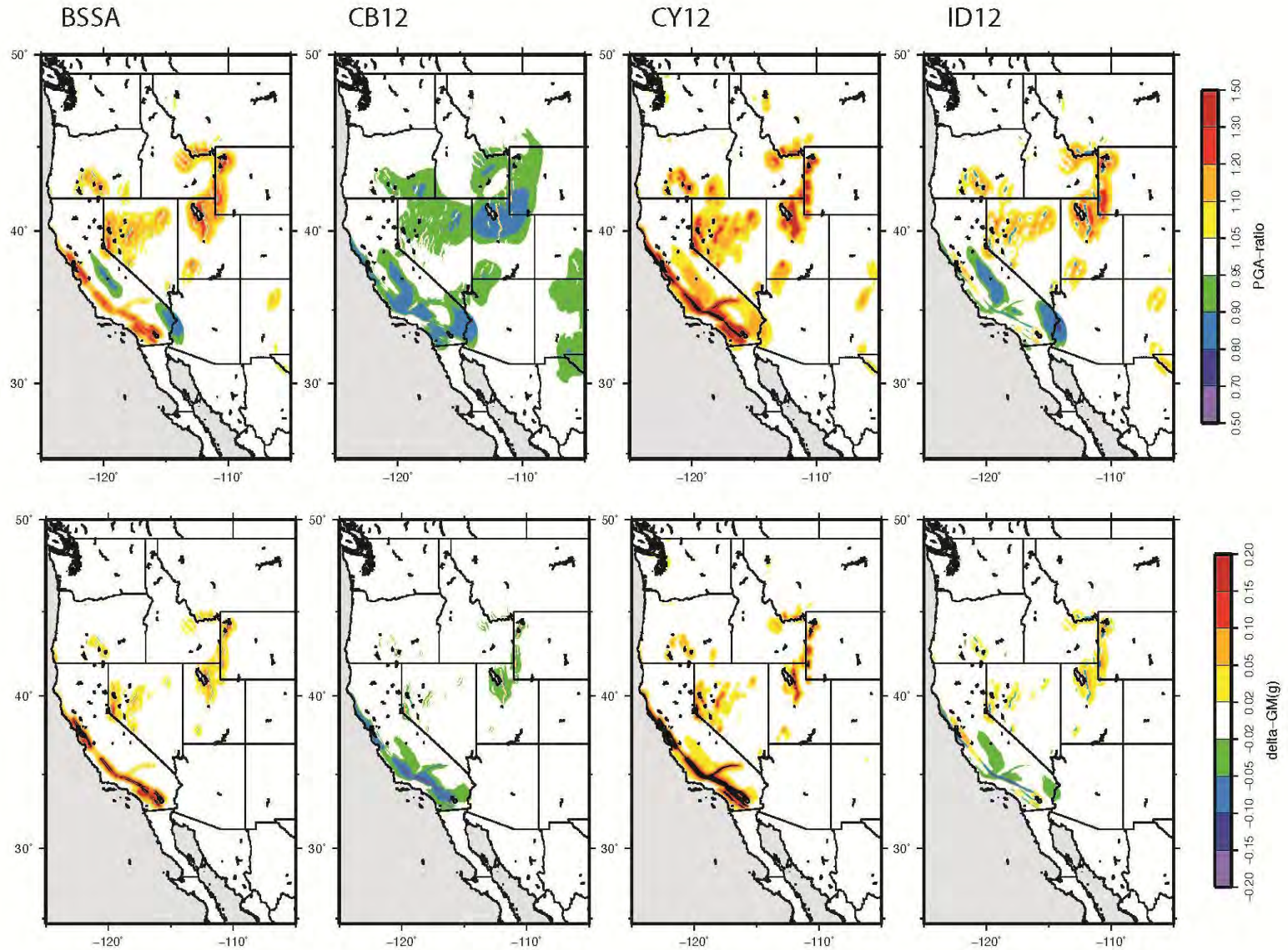
Abrahamson-Silva12/2008 5hz SA ratio, aFaults



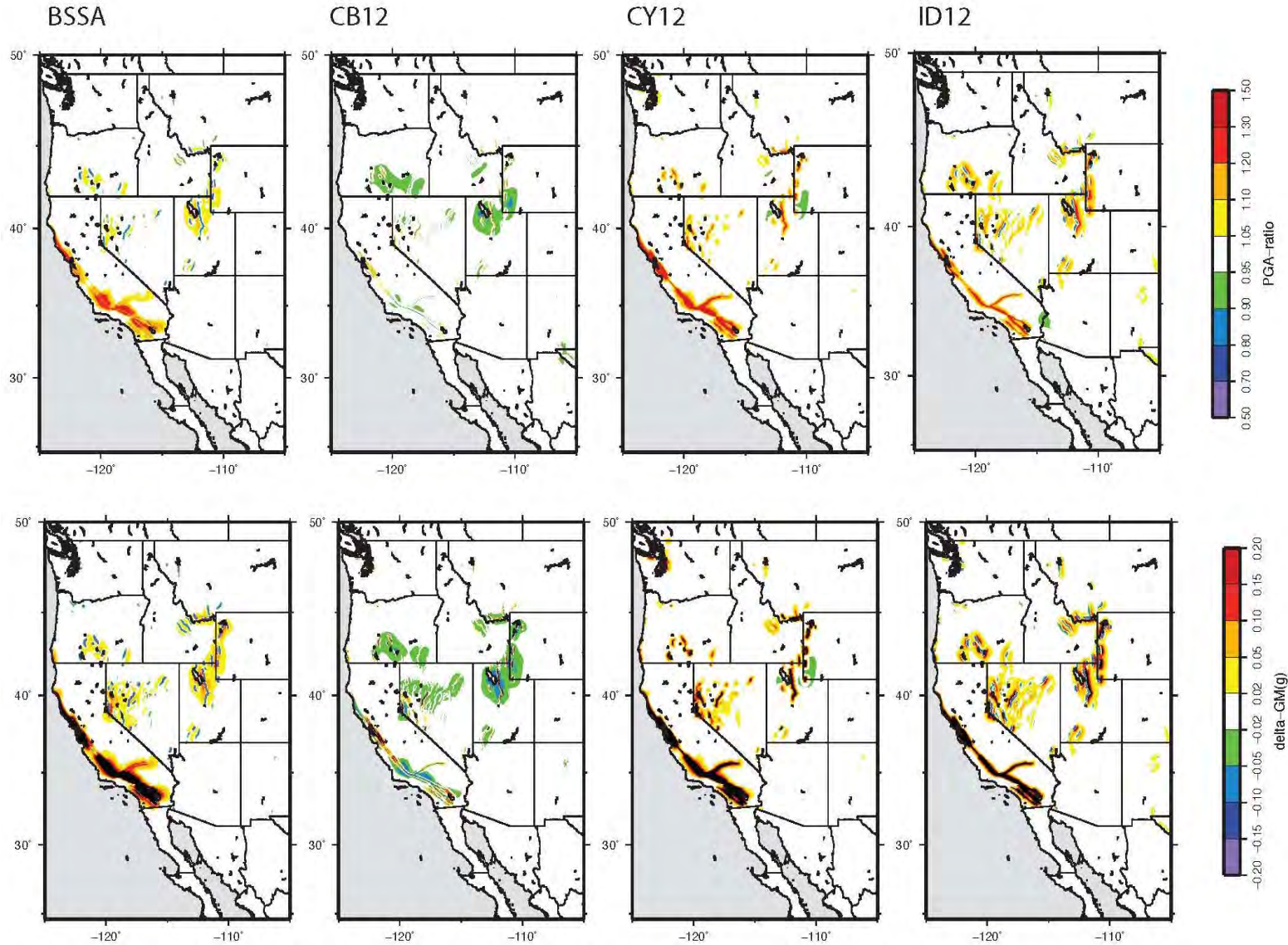
PGA



1 Hz SA



5Hz



GMPE ratios 1hz over 2008 model

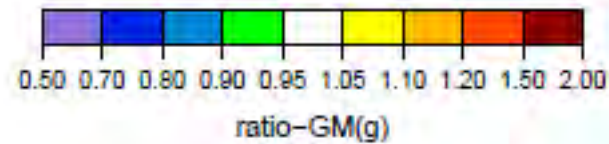
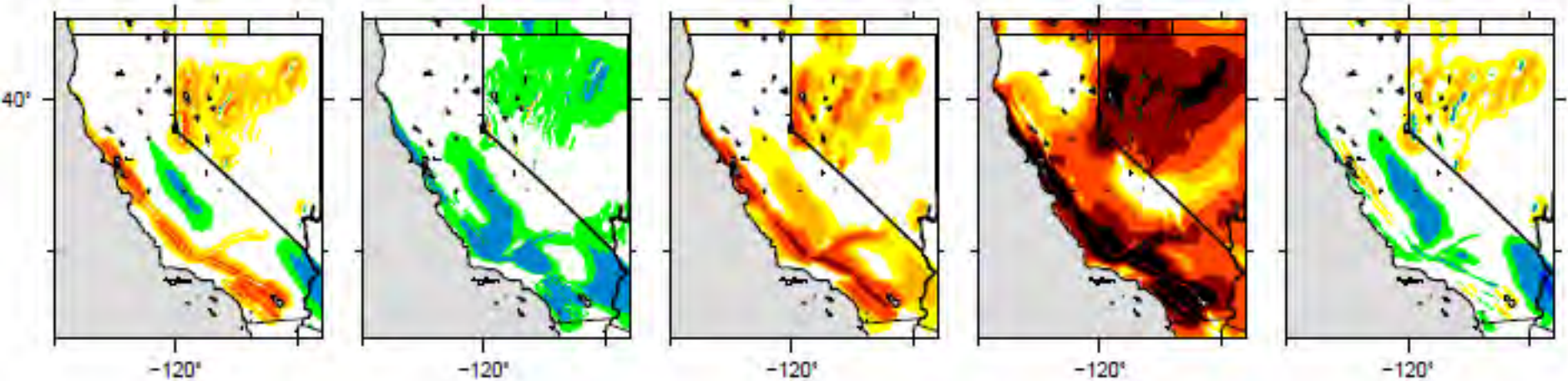
BSSA, 1hz

CB12, 1hz

CY12, 1hz

GR12, 1hz

id12, 1hz



GMPE ratios for PGA over 2008 model

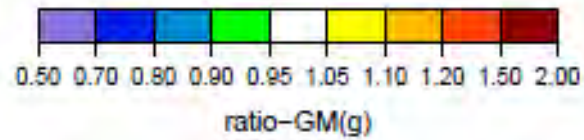
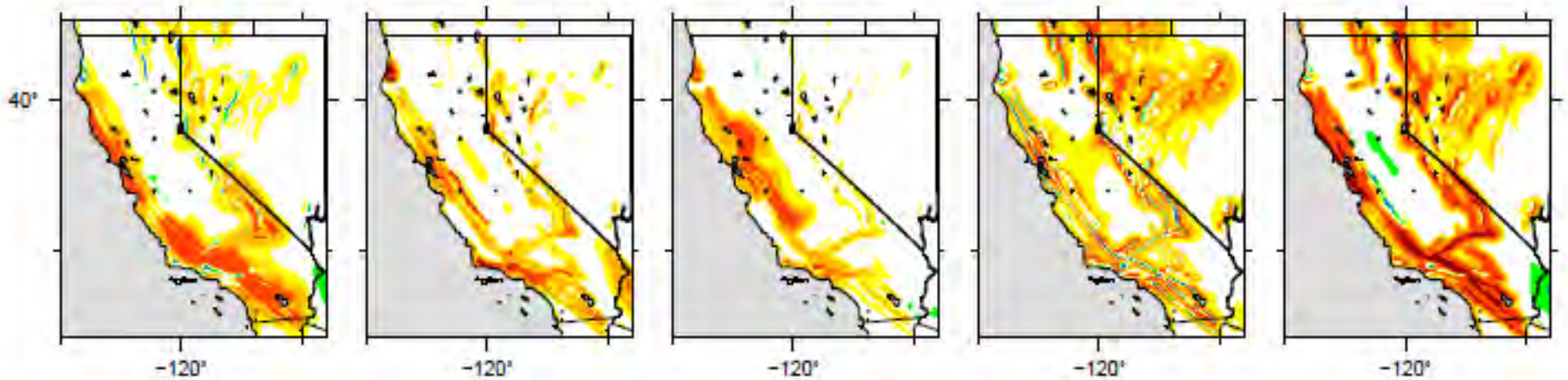
BSSA, pga

CB12, pga

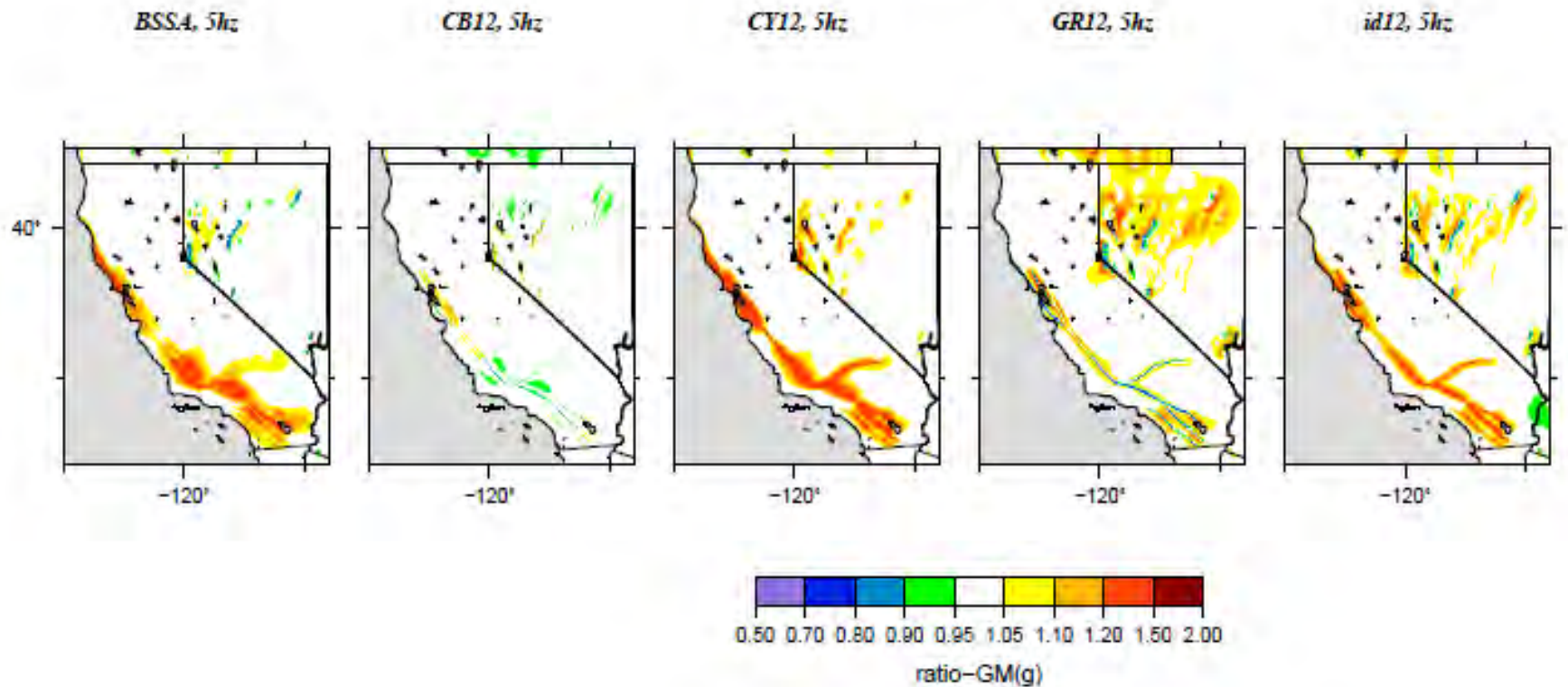
CY12, pga

GR12, pga

id12, pga



GMPE ratios for 5 hz over 2008 model



Weighting of WUS models

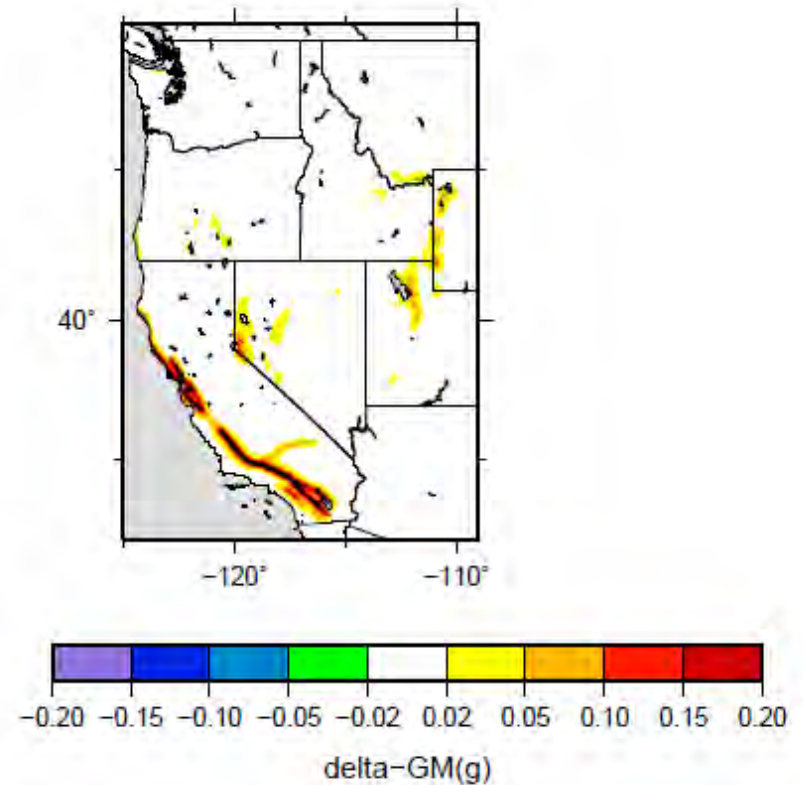
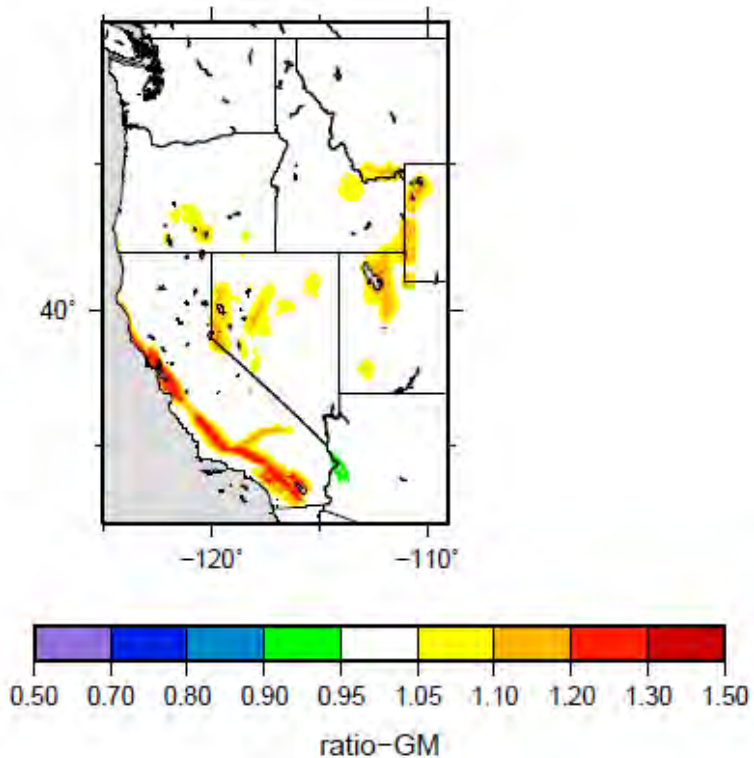
1. Weighted models (1hz)

This model uses the updated versions applied in 2008:

Boore and Atkinson (2012, wt = 0.33)

Campbell and Bozorgnia (2012, wt= 0.33)

Chiou and Youngs (2012, wt = 0.33)



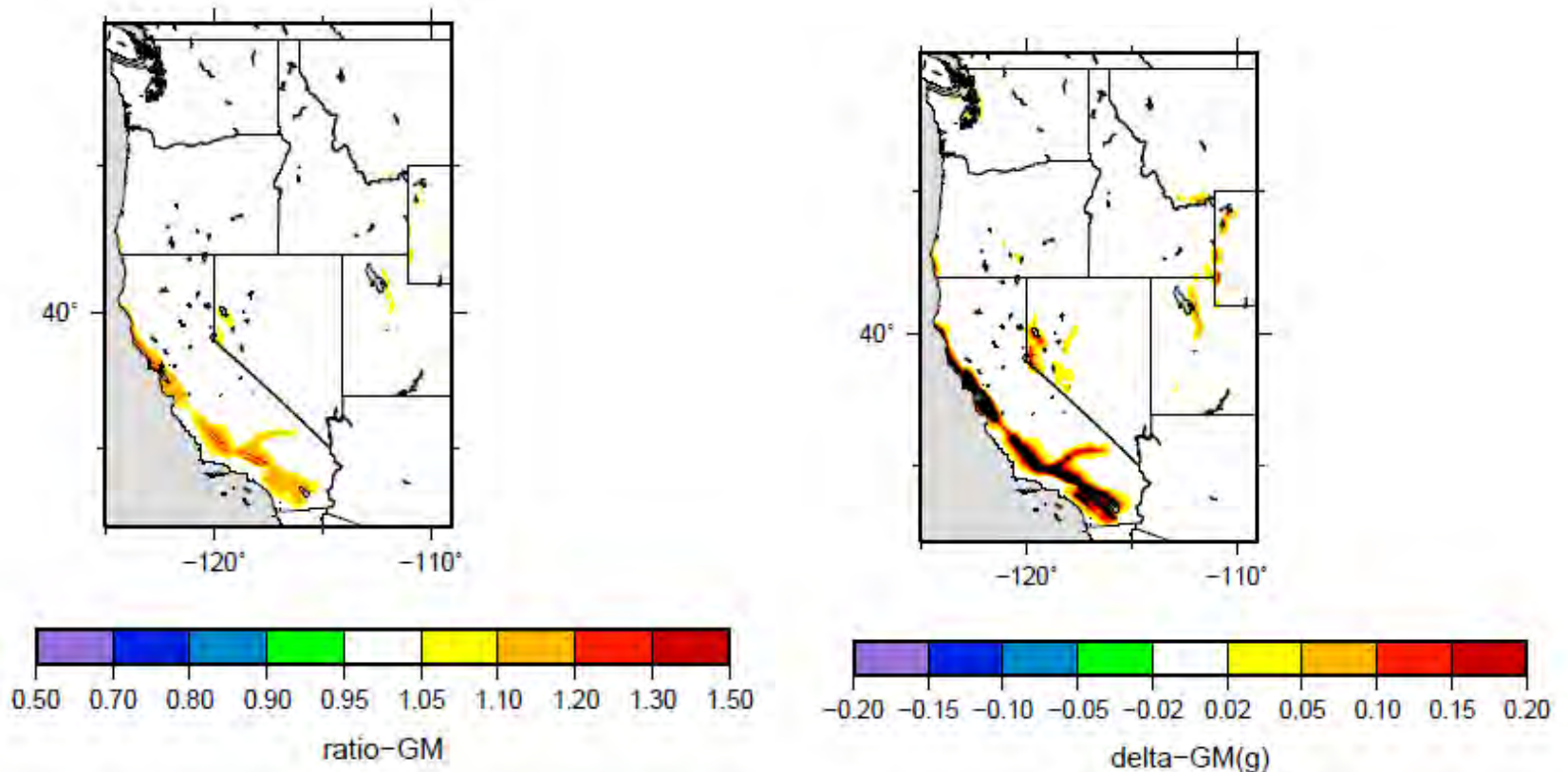
2. Weighted models (5 Hz)

This model uses the updated versions applied in 2008:

Boore and Atkinson (2012, wt = 0.33)

Campbell and Bozorgnia (2012, wt= 0.33)

Chiou and Youngs (2012, wt = 0.33)



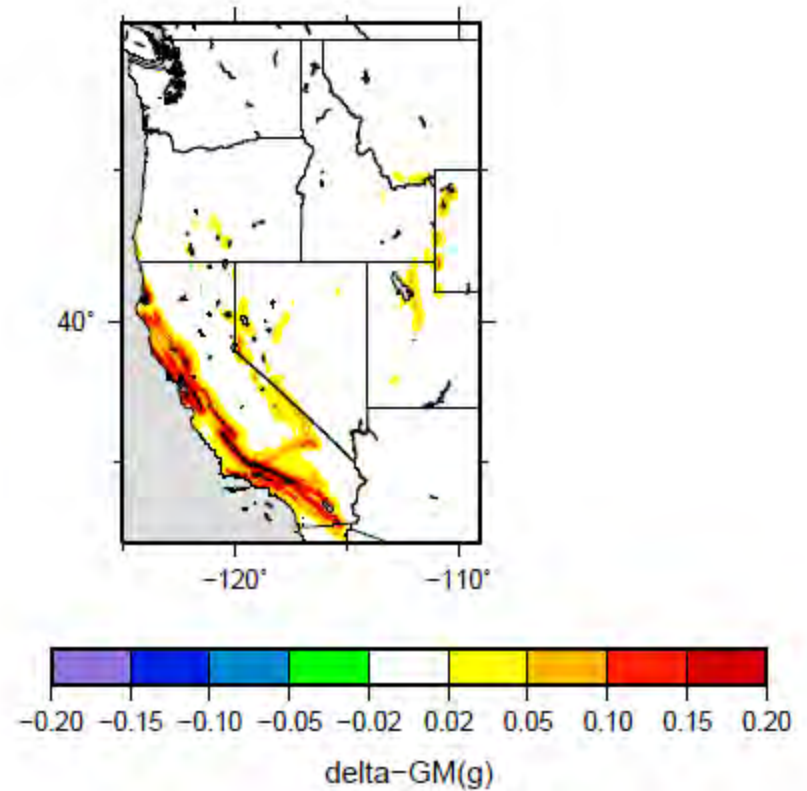
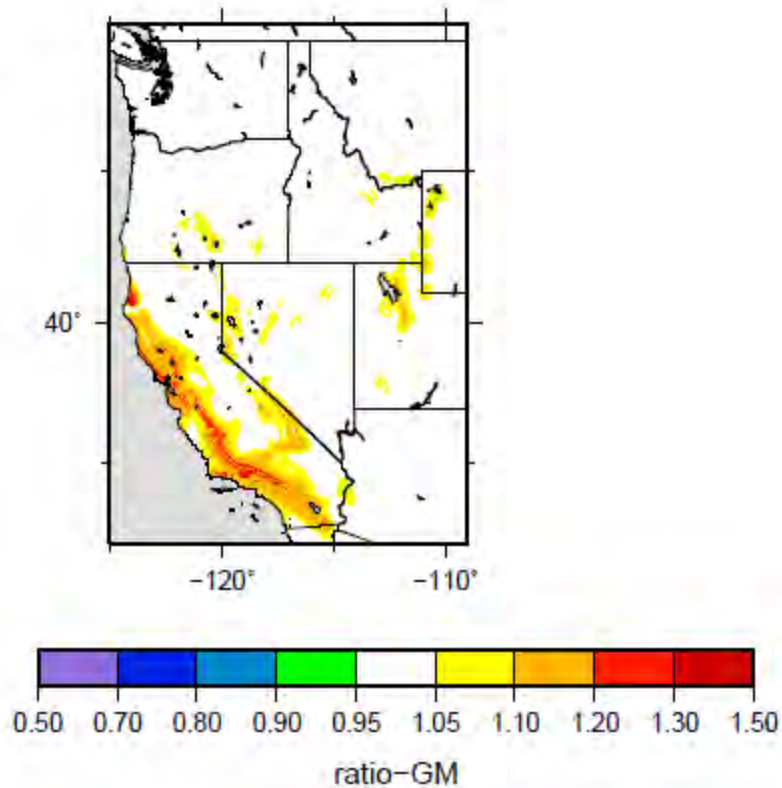
3. Weighted models (PGA)

This model uses the updated versions applied in 2008:

Boore and Atkinson (2012, wt = 0.33)

Campbell and Bozorgnia (2012, wt= 0.33)

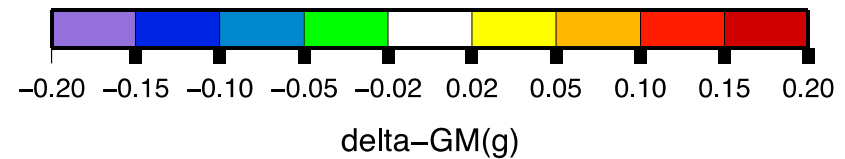
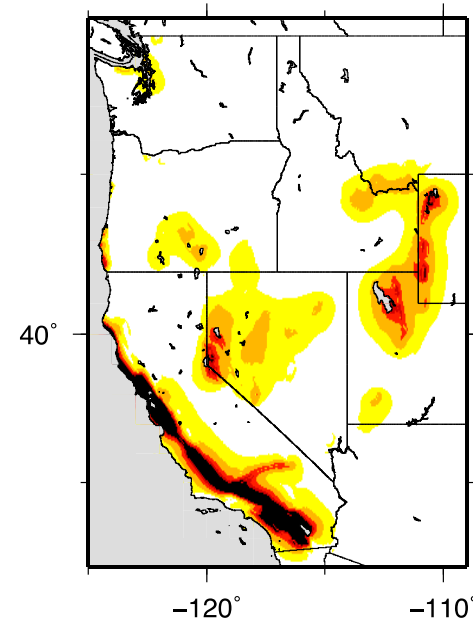
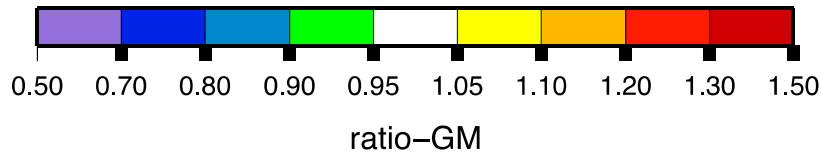
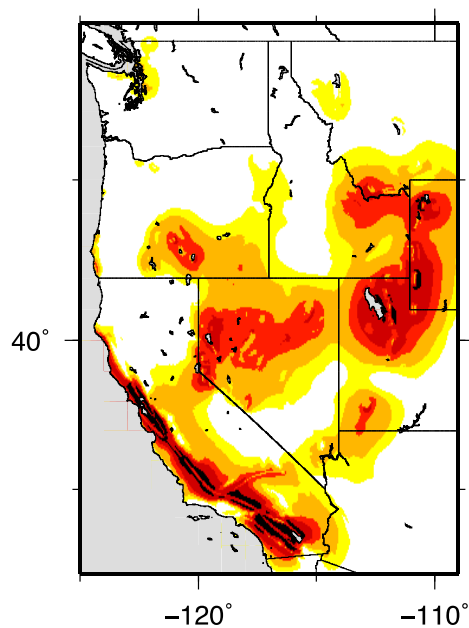
Chiou and Youngs (2012, wt = 0.33)



4. Weighted models (1hz)

1/6=0.16 weight on each of the following GMPEs:

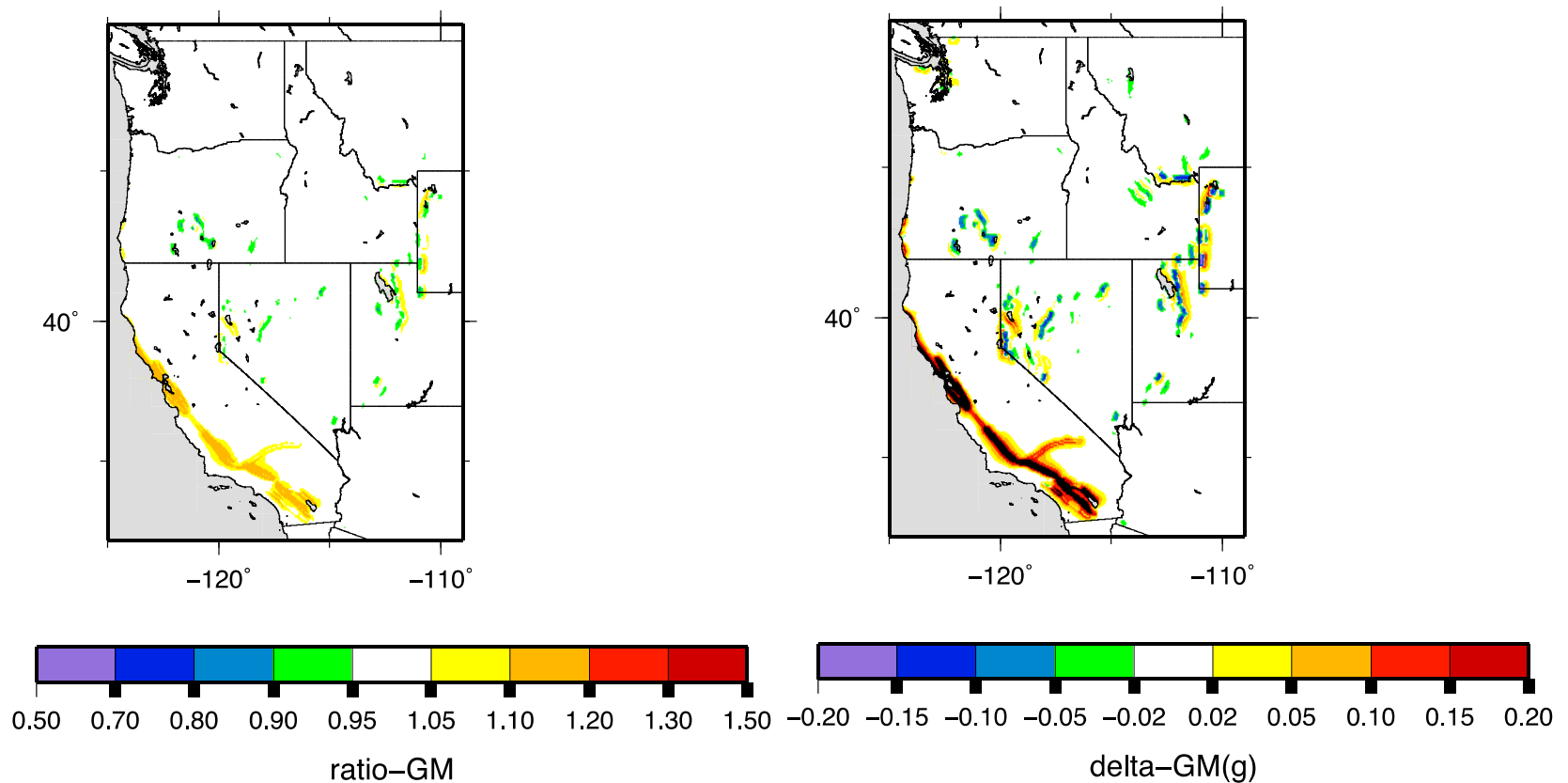
Abrahamson and Silva, Boore and Atkinson, Campbell and Bozorgnia, Chiou and Youngs
Graizer and Kalkan, and Idriss



4. Weighted models (5hz)

1/6=0.16 weight on each of the following GMPEs:

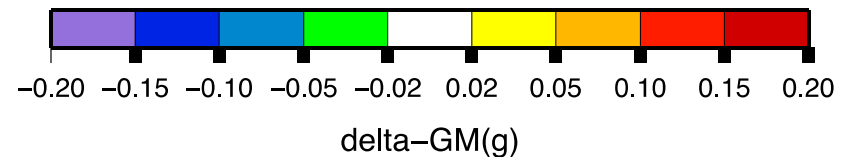
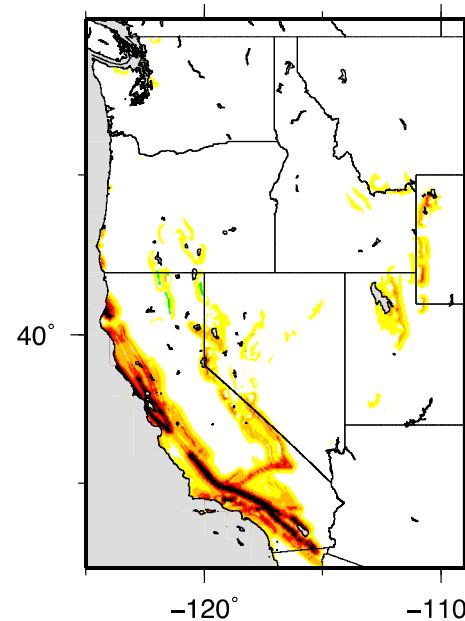
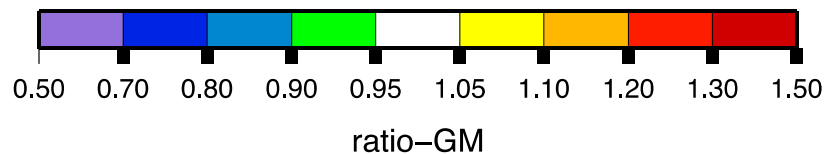
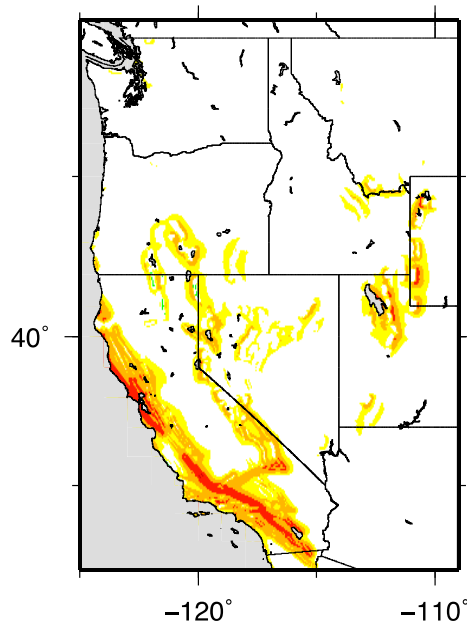
Abrahamson and Silva, Boore and Atkinson, Campbell and Bozorgnia, Chiou and Youngs, Graizer and Kalkan, and Idriss



Weighted models (PGA)

1/6=0.16 weight on each of the following GMPEs:

Abrahamson and Silva, Boore and Atkinson, Campbell and Bozorgnia, Chiou and Youngs, Graizer and Kalkan, and Idriss



Discussion

- Which GMPEs should we include?
- What should we consider in weighting the models?