SCEC BROADBAND STRONG MOTION SIMULATION PLATFORM

Summary of November 30 Broadband Conference Call

Participants: Andreas, Carola, Christine, Doug, Fabio, Jorge, Kim, Karen, Norm, Paul, Phil, Ralph, Ronnie, Rob

PART A: COMPARISON WITH DATA

Resolved Items:

- Two thirds of the depths for the URS Green's functions for the CEUS model were calculated, starting with Saguenay **(Rob)**

Action Items:
- Parameters for generating roughness in fault slip and slip timing in UCSB method have been provided to Fabio, but he has not implemented them yet, and they may need further adjustment **(Fabio, Ralph, Jorge)**

- Greens functions for the LA Basin Model were calculated by Ralph/Jorge, but it is hard to check the output because the Green's function require a lot of data points and there is a storage problem, and it is difficult to finalize the source parameters without looking at the results. Phil thinks that the time histories look unrealistic, and Fabio saw a broadband bias of 1 natural log unit (**Ralph, Jorge**)

- Examine the bandwidth of the data as a function of distance to assist Ralph in possible selection of radii of a "bullseye" approach to GF calculation in which Nyquist frequencies are successively reduced with increasing radius, consistent with the bandwidth of the data. **(Christine)**

- UCSB Greens functions need to be calculated for the CEUS model to run the eastern events. **(Ralph/Jorge)**

- **NOTE: Green's functions should be loaded onto the USC BB server with notification to Fabio that they are ready**

PART B: COMPARISON WITH GMPE'S

Resolved Items:
- In response to enquiry from Kim, Fabio explained how to make it easy to correlate the rupture model plots with the goodness of fit plots.

Action Items:

- Ronnie will make comparisons of GMPE's with simulation results. The focus is on getting a result for 30 foot wall stations, at least one SRF run, preferably for more (**Ronnie**).
- The highest priority events are Strike-Slip M6 and Strike-Slip M 7, 25 runs each (**Ronnie**)

- Christine and Ronnie will help prepare the display of the comparisons that Fabio provides (**Fabio, Christine, Ronnie**)
- The format of the goodness of fit plots should follow the standard set by Christine – the bias, its confidence interval, using the same scale and color scheme
- Ronnie will make plots of the average bias of the 50 runs

OTHER MODULES

Anderson:

No change in status

Boore Point Source Stochastic:

Carola discussed it with Boore – first calibrating geometrical spreading, finite fault effects, distant Q, for single and double corner models, and then calibrate stress parameter. Also working on getting a crustal amplification factor for Vs30 863. We be run outside the Platform for the Dec 11 Workshop

EXSIM:

Karen is now running Whittier Narrows. He will see if the stress parameter needs to be adjusted. Exsim will be run outside the Platform for the 3 California events plus Saguenay for the Dec 11 Workshop.

Irikura:

Jerry is working on integrating the asperity picker into the Recipe code so that the srf files can be converted to Irikura asperity recipe files.

SCHEDULE

First milestone: December 11 NGA-East Meeting
Second milestone: April 2013 deadline for getting all the validations done

PRIORITIES FOR MEETING SCHEDULE

Christine pointed out that the December 11 Meeting is a working meeting with the goal of finding out where we are in the process, and is not related to the judging of methods, which will be done later.

The highest priorities for the Dec 11 meeting are:

Have some GMPE comparisons to look at

Have GOF plots of the western events (Loma Prieta, Northridge, Landers) for three methods

Have GOF plots of an eastern event (Saguenay) for at least two methods – SDSU and URS

Adding new modules is the next priority

NEXT CALL: Friday Dec 7 at 1 pm PST -NOTE THE TIME – ONE HOUR EARLIER

AGENDA topics

Dec 7: Focus on preparation of presentations at Dec 11 Workshop