

2016 Monthly Webconferences: Ground Motion Simulation & Validation (GMSV)

Objective: To coordinate and obtain feedback on the plans of the [2016 QuakeCoRE GMSV research projects](#).

PLEASE NOTE: Presentation slides below are the author's property. They may contain unpublished or preliminary information and should only be used while viewing the talk.

15 December 2016 (9:00-11:00am NZT, web link:<https://canterbury.zoom.us/j/445125226>**)**

Purpose: To coordinate and share research activities on, and related to, 2016 QuakeCoRE GMSV research projects; and plan 2017 projects

Agenda:

- Elaboration on purpose of web conference (Brendon Bradley, ~5 minutes)
- Progress of ["Validation of Strong Ground Motion Simulations of two Historical New Zealand Subduction Zone Earthquakes on the SCEC CBBP"](#) (Paul Somerville, ~15 minutes)
- Discussion (All, ~5 minutes)
- Progress of ["Validation of Ground Motion Simulations using Fragile Geologic Features"](#) (Mark Stirling, ~15 minutes)
- Discussion (All, ~5 minutes)
- Progress of ["Dynamic Site Characterisation of the Nelson/Tasman Region"](#) (Rebecca McMahon, ~15 minutes)
- Discussion (All, ~5 minutes)
- Progress of ["Advancing ground motion simulation methodologies through further insights from the 2010-2011 Canterbury earthquakes"](#) (Hoby Razafindrakoto / Ahsan Nazer, ~15 minutes)
- Discussion (All, ~5 minutes)
- Progress of ["Guidance for the utilization of earthquake-induced ground motion simulations in engineering practice"](#) (Didier Pettinga, ~15 minutes)
- Discussion (All, ~5 minutes)
- Invited: ["Preliminary ground motion simulations of the 14 November 2016 Mw7.8 Kaikoura Earthquake"](#) (Brendon Bradley, 10 minutes)
- [Discussion on 2017 projects](#) (several slides each) (10 minutes)

Participants: 1) Brendon Bradley, UC; 2) Ahsan Nazer, UC; 3) Chris McGann, UC; 4) Ethan Thomson, UC; 5) Liam Wotherspoon, UA; 6) Rebecca McMahon, MWH/UA; 7) Didier Pettinga, Holmes; 8) Jeff Fraser, Golder; 9) Mark Stirling, UOtago; 10) Paul Somerville, AECOM; 11) Chris Van Houtte, Harvard; 12) Karim Tarbali, UC; 13) Hoby Razafindrakoto, UC.

Apologies: Jeff Bayless, Kevin Foster

2017 RfP Discussions: 22 Sept, 6 Oct, 14 Oct 2016 (9:00-10:00am NZT, web link: <https://canterbury.zoom.us/j/374852384>**)**

Purpose: To provide information on the 2017 QuakeCoRE RfP and discuss individual and group research ideas and plans

Agenda:

- [2017 RfP summary and specific changes to thrust areas in Flagship 1: Ground Motion Simulation and Validation](#) (Bradley)
- Misc questions and discussion from those on the call about individual and group research ideas and plans

28 July 2016 (9:00-10:30am NZT, web link: <https://canterbury.zoom.us/j/420702913>**)**

Purpose: To coordinate and share research activities on, and related to, 2016 QuakeCoRE GMSV research projects.

Agenda:

- Elaboration on purpose of web conference (Brendon Bradley, ~5 minutes)
- Plans for and progress of ["Dynamic site characterisation of the Nelson/Tasman Region"](#) (Rebecca McMahon, ~15 minutes)
- Discussion (All, ~5 minutes)
- Invited: ["Period-to-period Fourier spectral correlations for high-frequency ground motion modelling"](#) (Jeff Bayless, ~15 minutes)

- Discussion (All, ~5 minutes)
- Plans for and progress of "[Guidance on the utilization of ground motion simulations in engineering practice](#)" (Didier Pettinga / Brendon Bradley, ~15 minutes)
- Discussion (All, ~5 minutes)
- Invited: "Recent developments in NZ seismic hazard analysis" (Matt Gerstenberger, ~15 minutes)
- Discussion (All, ~5 minutes)
- Recap of web conference & any action items (Brendon Bradley, ~5 minutes)

Participants: 1) Brendon Bradley, UC; 2) Seokho Jeong, UC; 3) Ahsan Nazer, UC; 4) Xavier Bellagamba, UC; 5) Chris McGann, UC; 6) Kevin Foster, UC; 7) Ethan Thomson, UC; 8) Liam Wotherspoon, UA; 9) Rebecca McMahon, MWH/UA; 10) Didier Pettinga, Holmes; 11) Jeff Fraser, Golder; 12) Nico Luco, USGS; 13) Elliot Bowie, UOtago; 14) Mark Stirling, UOtago; 15) Paul Somerville, AECOM; 16) Andreas Skarlatoudis, AECOM; 17) Jeff Bayless, AECOM /UCDavis; 18) Matt Gerstenberger, GNS; 19) Sanaz Razaieian, USGS.

Apologies: *Hoby Razafindrakoto*

23 June 2016 (9:00-10:30am NZT, web link: <https://canterbury.zoom.us/j/420702913>)

Purpose: To coordinate and share research activities on, and related to, 2016 QuakeCoRE GMSV research projects.

Agenda:

- Elaboration on purpose of web conference (Brendon Bradley, ~5 minutes)
- Invited: "SCEC Cybershake" (Christine Goulet, ~15 minutes)
- Discussion (All, ~5 minutes)
- Invited: "[Development and analysis of the NZ strong motion database](#)" (Chris Van Houtte, ~15 minutes)
- Discussion (All, ~5 minutes)
- Plans for and progress of "[Ground motion simulation of Porter Pass fault earthquakes on the Canterbury region](#)" (Ahsan Nazer, ~15 minutes)
- Discussion (All, ~5 minutes)
- Discussion: [QuakeCoRE Annual Meeting and pre-AM workshop on GMSV](#) (Brendon Bradley, moderator, ~10minutes)
- Recap of web conference & any action items (Brendon Bradley, ~10 minutes)

Participants: 1) Brendon Bradley, UC; 2) *Hoby Razafindrakoto*, UC; 3) Seokho Jeong, UC; 4) Ahsan Nazer, UC; 6) Karim Tarbali, UC; 7) Xavier Bellagamba, UC; 8) Chris McGann, UC; 9) Liam Wotherspoon, UA; 10) Rebecca McMahon, MWH/UA; 11) Didier Pettinga, Holmes; 12) Jeff Fraser, Golder; 13) Ricardo Taborda, UMemphis; 14) Christine Goulet, SCEC; 15) Elliot Bowie, UOtago; 16) Paul Somerville, AECOM; 17) Andreas Skarlatoudis, AECOM

Apologies: Mark Stirling

26 May 2016 (9:00-10:30am NZT, web link: <https://canterbury.zoom.us/j/420702913>)

Purpose: To coordinate and share research activities on, and related to, 2016 QuakeCoRE GMSV research projects.

Agenda:

- Elaboration on purpose of web conference (Brendon Bradley, ~5 minutes)
- Invited: "[Ground motion aspects of the 13 June 2011 Mw6.0 Christchurch earthquake](#)" (Brendon Bradley, ~15 minutes)
- Discussion (All, ~5 minutes)
- Plans and progress of "[Validation of Ground Motion Simulations using Fragile Geologic Features](#)" (Elliot Bowie, ~15 minutes)
- Discussion (All, ~5 minutes)
- Plans for and progress of "[Guidance for the utilization of earthquake-induced ground motion simulations in engineering practice](#)" (Didier Pettinga, ~15 minutes)
- Discussion (All, ~5 minutes)
- Discussion: [QuakeCoRE Annual Meeting and pre-AM workshop on GMSV](#) (Brendon Bradley, moderator, ~10minutes)

- Recap of web conference & any action items (Brendon Bradley, ~10 minutes)

Participants: 1) Brendon Bradley, UC; 2) Richard Clare, QuakeCoRE; 3) Hoby Razafindrakoto, UC; 4) Seokho Jeong, UC; 5) Ahsan Nazer, UC; 6) Robin Lee, UC; 7) Ethan Thomson, UC; 8) Karim Tarbali, UC; 9) Xavier Bellagamba, UC; 10) Chris McGann, WSU; 11) Liam Wotherspoon, UA; 12) Rebecca McMahon, MWH/UA; 13) Didier Pettinga, Holmes; 14) Reagan Chandrahamon, Stanford; 15) Jeff Fraser, Golder; 16) Ricardo Taborda, UMemphis

Apologies: Jeff Bayless, Christine Goulet, Mark Stirling, Paul Somerville, Andreas Skarlatoudis

28 April 2016 (9:00-10:30am NZT)

Purpose: To coordinate and share research activities on, and related to, 2016 QuakeCoRE GMSV research projects.

Agenda:

- Elaboration on purpose of web conference (Brendon Bradley, ~5 minutes)
- Invited: ["Use of site-specific response analysis at Heathcote Valley to examine extreme ground motion amplitudes"](#) (Seokho Jeong, ~15 minutes)
- Discussion (All, ~5 minutes)
- Invited: ["Deep Vs profiling of SMS in the Canterbury plains: methodologies and preliminary results"](#) (Liam Wotherspoon / Clint Wood, ~15 minutes)
- Discussion (All, ~5 minutes)
- Invited: ["Implementation of the Anderson goodness-of-fit criteria on the SCEC broadband platform"](#) (Andreas Skarlatoudis, ~15 minutes)
- Discussion (All, ~5 minutes)
- Discussion session: ["What are the current gaps in our collective research efforts to address the Thrust Areas of QuakeCoRE GMSV \(both QuakeCoRE and externally-funded\), how can we address these through the 2017 QuakeCoRE RfP, external funding, better collaboration with other entities"](#) (Brendon Bradley, moderator, ~15minutes)
- Recap of web conference & any action items (Brendon Bradley, ~10 minutes)

Participants: 1) Paul Somerville, Aecom; 2) Jeff Bayless, Aecom; 3) Andreas Skarlatoudis, Aecom; 4) Brendon Bradley, UC; 5) Richard Clare, QuakeCoRE; 6) Viktor Polak, QuakeCoRE; 7) Hoby Razafindrakoto, UC; 8) Seokho Jeong, UC; 9) Ahsan Nazer, UC; 10) Robin Lee, UC; 11) Ethan Thomson, UC; 12) Karim Tarbali, UC; 13) Xavier Bellagamba, UC; 14) Chris McGann, WSU; 15) Liam Wotherspoon, UA; 16) Rebecca McMahon, MWH/UA; 17) Didier Pettinga, Holmes; 18) Reagan Chandrahamon, Stanford; 19) Yoshi Kaneko, GNS

Apologies: Jeff Fraser, Mark Stirling, Clint Wood

24 March 2016 (9:00-10:30am NZT)

Purpose: To coordinate and obtain feedback on 2016 QuakeCoRE GMSV research projects.

Agenda:

- Elaboration on purpose of web conference (Brendon Bradley, ~5 minutes)
- Plans for and progress of ["Advancing ground motion simulation methodologies through further insights from the 2010-2011 Canterbury earthquakes: 3D waveform inversion"](#) (Robin Lee, ~15 minutes)
- Discussion (All, ~5 minutes)
- Plans for and progress of ["Validation of Ground Motion Simulations using Fragile Geologic Features"](#) (Mark Stirling, ~15 minutes)
- Discussion (All, ~5 minutes)
- Plans for and progress of ["Further coordination between QuakeCoRE and SCEC on ground motion simulation validation"](#) (Nico Luco, ~15 minutes)
- Discussion (All, ~10 minutes)
- Plans for and progress of ["Dynamic Site Characterisation of the Nelson/Tasman Region"](#) (Liam Wotherspoon, ~15 minutes)
- Discussion (All, ~5 minutes)
- Recap of web conference & any action items (Brendon Bradley, ~5 minutes)

Participants: 1) Paul Somerville, Aecom; 2) Jeff Bayless, Aecom; 3) Andreas Skarlatoudis, Aecom; 4) Nico Luco, USGS; 5) Chris Van Houtte, GNS; 6) Brendon Bradley, UC; 7) Richard Clare, QuakeCoRE; 8) Hoby Razafindrakoto, UC; 9) Seokho Jeong, UC; 10) Ahsan Nazer, UC; 11) Robin Lee, UC; 12) Ethan Thomson, UC; 13) Karim Tarbali, UC; 14) Xavier Bellagamba, UC; Gabriele Chiaro, UC; 16) Chris McGann, WSU; 17) Mark Stirling, UOtago; 18) Elliot Bowie, UOtago; 19) Liam Wotherspoon

Apologies: Didier Pettinga, Jeff Fraser, Yoshi Kaneko, Christine Goulet

25 February 2016 (9:00-10:30am NZT)

Purpose: To coordinate and obtain feedback on 2016 QuakeCoRE GMSV research projects.

Agenda:

- [Elaboration on purpose of web conference](#) (Brendon Bradley, ~5 minutes)
- Plans for and progress of "[Validation of Strong Ground Motion Simulations of two Historical New Zealand Subduction Zone Earthquakes on the SCEC BBP](#)" (Jeff Bayless, ~15 minutes)
- Discussion (All, ~5 minutes)
- Plans for and progress of "Modelling earthquake engineering parameters" (Caroline Holden, ~15 minutes)
- Discussion (All, ~5 minutes)
- Plans for and progress of "[Advancing ground motion simulation methodologies through further insights from the 2010-2011 Canterbury earthquakes: Non-ergodic analysis](#)" (Hoby Razafindrakoto, ~15 minutes)
- Discussion (All, ~10 minutes)
- Plans for and progress of "[Guidance for the utilization of earthquake-induced ground motion simulations in engineering practice](#)" (Didier Pettinga, ~15 minutes)
- Discussion (All, ~5 minutes)
- Recap of web conference & any action items (Brendon Bradley, ~5 minutes)

Action Items: None

Participants: 1) Paul Somerville, Aecom; 2) Jeff Bayless, Aecom; 3) Caroline Holden, GNS; 4) Yoshi Kaneko, GNS; 5) Chris Van Houtte, GNS; 6) Didier Pettinga, Holmes; 7) Brendon Bradley, UC; 8) Richard Clare, QuakeCoRE; 9) Hoby Razafindrakoto, UC; 10) Seokho Jeong, UC; 11) Ahsan Nazer, UC; 12) Robin Lee, UC; 13) Ethan Thomson, UC; 14) Karim Tarbali, UC; 15) Xavier Bellagamba, UC; 16) Chris McGann, WSU.

Apologies: Liam Wotherspoon, Mark Stirling, Jeff Fraser