



NGA-East SSHAC Workshop 3C

NGA-East GMC: a summary



TI Team

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NGA-East SSHAC Workshop

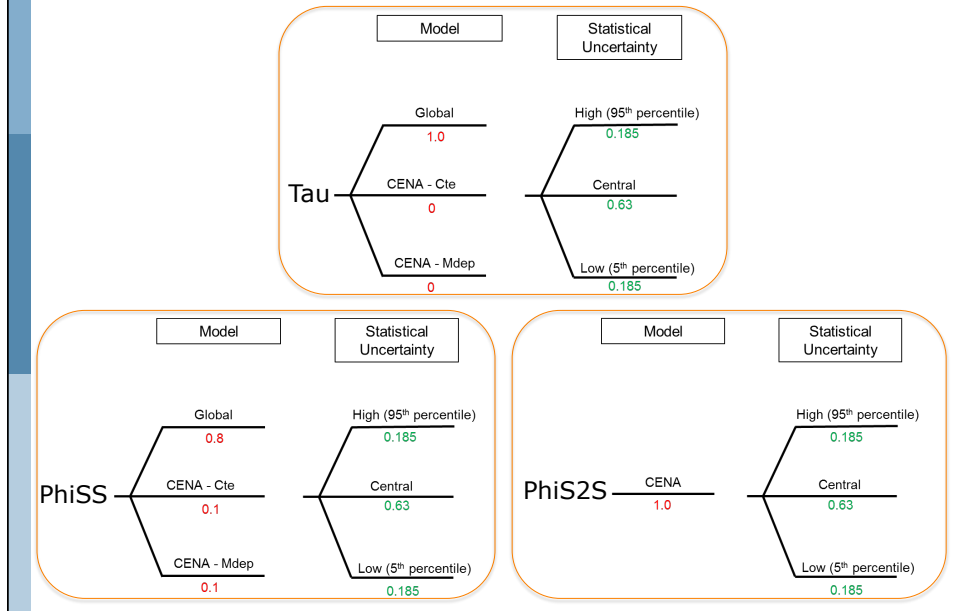
June 17-18, 2015

Median Models (wt for each of 29 cells)

- Within range of reliable data (same bandwidth as used for Sigma: 1-10Hz):
 - 80 % on number of models in cell
 - 10 % on 1/residuals
 - 10 % on likelihood
- Outside of data range
 - 100 % on number of models in cell



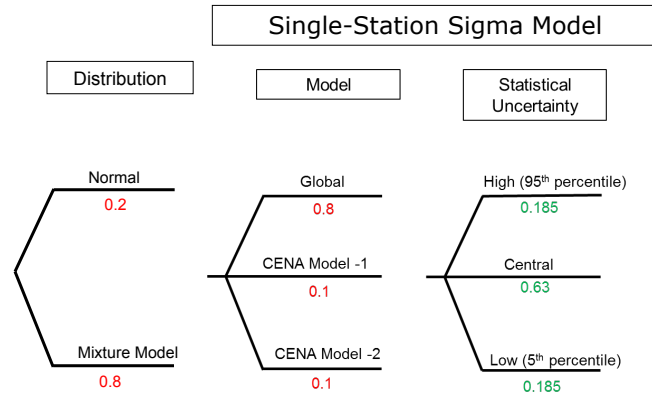
Sigma Models



Composite Single-Station Sigma Model

- Develop CDFs for the 3 continuous SigSS models at the M breaks (SigSS² follows scaled Chi-square distribution)
- Develop weighted composite CDF using the CDFs of the 3 models and their weights
- Represent the composite distribution by 3 discrete points at 5th, 50th, and 95th percentiles
- Weights of 0.185, 0.63, and 0.185 on the 3 branches produce the mean and SD of the continuous composite distribution

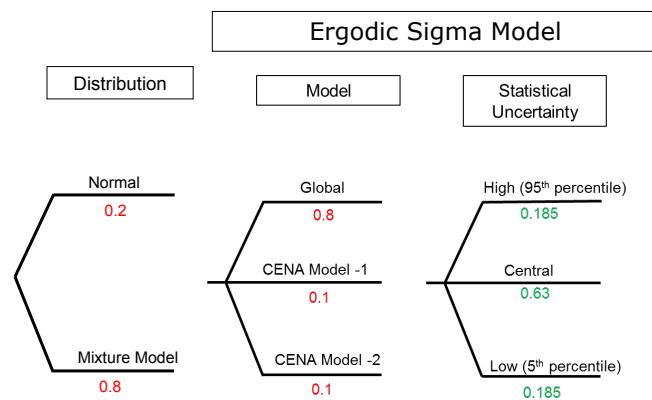
Single-Station Sigma Logic Tree



5



Ergodic Sigma Logic Tree



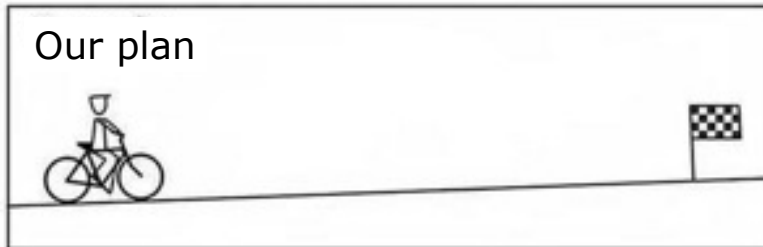
Adjustment models

- Source-depth effects
 - 100% to depth dependence
 - depth-centering to be finalized
- Gulf Coast region
 - third model to be evaluated
 - weights to be defined
- Hanging-wall effects



NGA-East

Our plan



Collaborators and contributors *in randomized order*

Yousef Bozorgnia	Vladimir Graizer	Arben Pitarka	Jerome Kutliroff
Byungmin Kim	Clifford Munson	Sarah Tabatai	Eric Thompson
Steve McDuffie	Grace Parker	Nico Kuehn	Jack Boatwright
Kenneth Campbell	Carola Di Alessandro	Imad El Khoury	Michael Musgrove
Chris Cramer	Katie Wooddell	Robert B. Herrmann	Tomoyuki Inoue
Joseph Harmon	Nico Kuehn	Emrah Yenier	Olga Ktenidou
Tom Hanks	Olga Ktenidou	Walter Mooney	Albert Kottke
Mark Petersen	Jonathan Stewart	Annie Kammerer	Charles Mueller
Richard Godbee	Gabriel Toro	Jeff Bayless	Christina Hale
Annemarie Baltay	John Ebel	Paul Somerville	Nick Gregor
Justin Hollenback	Maurice Lamontagne	Fabio Silva	Behrooz Tavakoli
Brian Chiou	Paul Spudich	Alireza Shahjouei	Doug Dreger
Arthur Frankel	Sissy Nikolaou	Yuehua Zeng	Kim Olsen
Jon Ake	Tadahiro Kishida	Greg Beroza	Ronnie Kamai
Mayssa Dabaghi	Luis Dalguer	Arash Zandieh	Kevin Coppersmith
Ken Stokoe	Claudia Bongiovanni	Silvia Mazzoni	Cheryl Moss
Rob Williams	Rob Graves	Sahar Derakhshan	Jeff Hamel
Richard Rivera-Lugo	Bob Darragh	Brian Carlton	Lawrence Salomone
Ellen Rathje	Youssef Hashash	Nayeem Al Noman	Adrian Rodriguez-Marek
Julian Bommer	John Adams	Trevor Allen	Frank Scherbaum
Phil Maechling	Ralph Archuleta	Jack Baker	Donny Dangkoa
Marius Isken	David Wald	Liann Fan	Timothy Ancheta
Jeff Kimball	Dan Assouline	Walter Silva	Linda Al Atik
Alan Yong	Leon Reiter	Rasool Anoooshehpour	Bob Youngs
Norman Abrahamson	Martin Chapman	Camila Coria	Justin Rubistein
David Boore	Behzad Hassani	Shahram Pezeshk	John Anderson
Gail Atkinson	Jennifer Dreiling	Rich Lee	

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