



May 2018

LOS ANGELES BASIN GEOLOGICAL SOCIETY MEETING ANNOUNCEMENT

May 24 (Thursday) – 11:30 AM

Sherilyn Williams-Stroud
President / CEO, Confractus, Inc.

A GEOLOGICAL APPROACH TO SEISMICITY b -VALUES: IMPLICATIONS FOR HAZARD ASSESSMENT

Abstract

An important component of being able to assess the hazard associated with naturally-occurring or induced earthquakes is a prediction of the likelihood and size of the largest earthquake that may occur within a region. The size-frequency distribution of seismic events (which is also known as the b value) has been found to be consistent globally during the time that the seismology community has been measuring and maintaining earthquake data. For this general population of earthquakes, $b=1$. The fact that the b value may vary, for earthquake population subsets made by time, location, and method of occurrence, has led workers to seek a causal relationship to explain this variability, by suggesting parameters related, for example, to earth stress, hypocenter depth, and fluid pumping rate (in the case of induced earthquakes).

Sherilyn's talk will describe three case studies, to propose that the main determinant of the b value is the pre-existing fault and fracture character of geology of the region. Showing this relationship to be true enables the use of surface and subsurface geological mapping to serve as a proxy for earthquake occurrence and prediction of seismic hazard.

Speaker's Biography

Dr. Williams-Stroud obtained her PhD and MA from Johns Hopkins University, and her BA from Oberlin College. She has over 25 years of geological analysis experience involving government and industry projects, including 10 years of team management in both sectors. She previously held positions with the USGS, Chevron, MicroSeismic Inc., Occidental Petroleum (Oxy), and California Resources Corp. She is presently President and CEO of Confractus, Inc.

Sherilyn provides training and short courses in structural modeling, fracture modeling, and microseismic mapping, and is co-author of a patent for an algorithm to convert microseismic data into a discrete fracture network model. Her expertise as a structural geologist includes fracture interpretation, stress and strain analysis, and rock fracture mechanics, with applications to oil and gas exploration and production, unconventional resources, and geothermal energy. She also is a part-time faculty member of California State University, Northridge.

***Please join us for Sherilyn's
informative presentation!***

Meeting Time, Place, Cost, and Reservations

When:

Thursday, May 24, 2018

Meeting Agenda

Lunch Served: 11:30 AM to 11:45PM
Announcements: 11:45 AM to 12:00 PM
Guest Speaker: 12:00 PM to 12:45 PM
Questions/Close: 12:45 PM to 1:00 PM

Place:

The Grand at Willow Street Conference Center located at 4101 East Willow Street, Long Beach, CA (562-426-0555). Take Lakewood Boulevard south from the San Diego Freeway (I-405), turn west onto Willow Street, and turn right onto Grand Avenue at the sign for the Center. Park for free in the multi-level garage structure.

Cost (note recent price increase):

Lunch and Speaker: \$30.00 with reservations
\$35.00 without reservations

Retired: \$25.00

Student: **\$10.00**

PAYMENTS IN CASH OR CHECK ONLY

Meeting Reservations:

We encourage you to make your reservations using the LABGS web site, at www.labgs.org

Or, call Maia Davis at (530) 559-1404, or e-mail maiac.davis@gmail.com.

Reservations must be made by: **10:00 AM Tuesday May 22nd** to receive reservations discount price noted above (this will be strictly adhered to)
But as always, walk-ins are welcome!

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ANNOUNCEMENTS:

LABGS is expanding our meeting raffles, so we would appreciate candidate raffle prize donations!
Please bring item donations to the next meeting.

Please inform a LABGS Board member if you have a pertinent announcement.