



October 2018

LOS ANGELES BASIN GEOLOGICAL SOCIETY MEETING ANNOUNCEMENT

October 25 (Thursday) – 11:30 AM

Matthew Becker, PhD

Geological Sciences Department, CSU Long Beach

DISTRIBUTED FIBER OPTIC SENSING FOR DOWNHOLE APPLICATIONS

Abstract

Distributed fiber optic sensing has become an important contribution to downhole monitoring for petroleum production, hydrogeology, and geothermal energy. These sensors consist of an interrogator unit attached to a fiber optic cable that is lowered or cemented into a well or borehole. The interrogator fires laser light down the fiber and uses the backscattered photons to measure conditions at depth intervals of approximately 1 meter.

Two sensing methods will be discussed:

- 1) Distributed Temperature Sensing (DTS); and
- 2) Distributed Acoustic Sensing (DAS).

DTS has been available commercially for over a decade, but DAS is relatively new. DAS allows for microseismic monitoring and VSP profiling in wells. Low frequency seismic components are used to measure the hydraulic influence of stimulation.

At CSULB, we have recently demonstrated how injections of a known frequency can be used to determine fracture compliance. Distributed fiber optic sensing technology is rapidly advancing, and even more rapidly being adopted for reservoir management and characterization around the world.

***Please join the LABGS for
this interesting presentation!***

Speaker's Biography



Matt Becker, PhD

Dr. Becker is the Conrey Chair in Hydrogeology and Professor in the Geological Sciences Department at California State University Long Beach. He obtained his BS in Geology from Michigan State University, and his MS and PhD in Civil Engineering from the University of Texas at Austin.

He has held positions with Chevron USA, Los Alamos National Labs, and the US Geological Survey's National Research Program. He was also a National Academy of Science Senior Research Associate at NASA Goddard Space Center, and a Fulbright Scholar at the University Trento, Italy. Prior to arriving at CSULB he was an Assistant and then Associate Professor of Geology at the University of Buffalo. He has been studying fluid flow in fractured rock for over 20 years.

Meeting Time, Place, Cost, and Reservations

When:

Thursday, October 25, 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:

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 **Wanjiru Njuguna** at (818) 739-9154 or email her at wanjiru.njuguna@gmail.com.

Reservations must be made by: 10:00 AM Tuesday October 23rd to receive reservations discount price noted above

(this will be strictly adhered to)

But, as always, walk-ins are welcome!

OUR WEB SITE ADDRESS:
www.labgs.org

LABGS Board Contact Information:

President: Bert Vogler

(949) 585-3103

hvogler@kleinfelder.com

VP & Programs: Nate Busch

(714) 667-2300

nbusch@eecenvironmental.com

Treasurer: Nicky Oliver

(626) 305-8460

noliver@geomechanicstech.com

Secretary: Wanjiru Njuguna

(818) 739-9154

wanjiru.njuguna@gmail.com

Scholarships: Karla Tucker

(714) 658-0474

ktrk2@aol.com

Special Projects: Bill Long

(213) 448-2841

wtlgeoscience@gmail.com

Webmaster: Wanjiru Njuguna

(818) 739-9154

wanjiru.njuguna@gmail.com

ANNOUNCEMENTS:

LABGS has expanded our meeting raffles.

We would appreciate raffle prize donations!

Please bring donation items to the next meeting.

We need a new LABGS treasurer. If interested, please contact a current officer and let us know a bit about you. The LABGS executive committee will select from the interested candidates.

California Board for Professional Engineers, Land Surveyors, and Geologists (BPELSG) California-Specific Exam Occupational Analysis Survey (please complete survey by 10/31/2018):

<https://www.prometricsurvey.com/se/123C457B2D2B599601>

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