

THE GEOPRISMS PROGRAM

is a community-driven effort to carry out interdisciplinary investigations of continental margins around the world. Scientists from different disciplines work together, combining field operations with numerical, experimental, and analytical studies to develop an integrated understanding of the fundamental controls on continental margin evolution. These include deformation of the crust and mantle, generation, transport and storage of magma, chemical and material fluxes, fluid flow, and surface processes.

GeoPRISMS investigations have practical applications for sustainability in the face of climate change and sea level variation, resource management and availability, and hazard mitigation.

PROGRAM HIGHLIGHTS

Conferences & Workshops

GeoPRISMS sponsors scientific workshops each year to plan and advance research.

Event Response

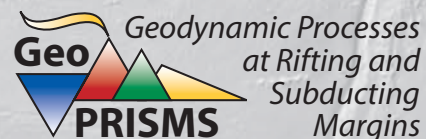
A rapid response strategy for earthquakes, volcanic eruptions, and other natural events allows scientists to collect data on active systems.

Data Management

All data collected under the GeoPRISMS Program are made available via an open, integrated data management system.
<http://www.marine-geo.org/portals/geoprisms/>

Education & Public Outreach

GeoPRISMS offers several programs to engage the public and students, including the Distinguished Lectureship Program and the Annual Student Prize for best presentation at AGU. MARGINS mini-lessons are available for undergraduate classes. <http://serc.carleton.edu/margins/index.html>



The GeoPRISMS Program is driven by input from, and interaction with, the Earth science community. GeoPRISMS is funded by the National Science Foundation.

The Pennsylvania State University
The GeoPRISMS Office
Department of Geosciences
503 Deike Building
University Park, PA 16802-2714



DISTINGUISHED LECTURESHIP PROGRAM

2018 - 2019

An opportunity for US colleges, universities, museums, and other institutions to host lectures by outstanding geoscientists.

<http://geoprisms.org/education/distinguished-lectureship-program/>

Distinguished scientists involved with GeoPRISMS science and planning are available to visit US colleges, universities, museums, schools, and other institutions. The distinguished speakers will present technical and public lectures on subjects related to the two GeoPRISMS science initiatives:

SUBDUCTION CYCLES AND DEFORMATION • RIFT INITIATION AND EVOLUTION



JAIME BARNES

Dr. Jaime Barnes is an Associate Professor at the University of Texas at Austin. She uses stable isotopes as geochemical tracers of fluids in various tectonic and geologic settings from the upper mantle, the oceanic lithosphere, the subducting plate interface, and thermal springs. Much of her research involves volatile

cycling, metamorphism and volatile transport in subduction zones, serpentinization, and fluid-rock interactions and metasomatism in high temperature environments with the overarching goal to improve our knowledge of the chemical evolution of the Earth.

Public Lecture: *A geochemical glimpse into hydrothermal systems*

Technical Lecture: *The role of the forearc in volatile cycling through subduction zones*



CYNTHIA EBINGER

Dr. Cynthia Ebinger holds the Marshall-Heape Chair in Geology at Tulane University. She received her BS in marine geology from Duke University, and a MS and PhD from the MIT-Woods Hole Oceanographic Joint Program in Oceanography. She completed her postdoctoral training at NASA Goddard Space Flight

Center and through a NATO fellowship at the University of Leeds. Her research focuses on plate boundary deformation processes, with focus on volcano and earthquake processes in marine and continental settings. Specifically, her data acquisition and modeling probe the response of Earth's plates to stresses induced by the movement of faults and the flow of magma and volatiles. As a geophysicist, she utilizes a range of signal processing and analytical and numerical modeling, studies of rock properties and Earth deformation processes, linking geological and geophysical data sets. The goal of her research teams is to understand the basic physics of fundamental Earth processes.

Public Lecture: *Recipe for continental rifting: Flavors of East Africa*

Technical Lecture: *Earthquakes within continental plates: How, where, and why it matters*



ANNE BECEL

Dr. Anne Bécel is an Associate Research Professor at Lamont-Doherty Earth Observatory. Her research focuses on characterizing the seismic structure of the Earth's crust and mantle to better understand underlying tectonic and magmatic processes primarily along active plate boundaries but also at rifted passive margins and

ocean basin settings. To investigate these processes, she uses marine active-source seismology and combines her results with geophysical data such as seismicity, drill hole, and potential field data. Her research mainly focuses on the study of the Alaska Peninsula and Hellenic subduction zones with an emphasis on assessing specific risks such as large earthquakes and associated tsunamis and the development of the Eastern North American passive margin.

Public Lecture: *Imaging the source of large subduction zone earthquakes*

Technical Lecture | ENAM: *A new view on the deep structure of the Eastern North American Margin: Implications for continental breakup and early seafloor spreading history*

Technical Lecture | Alaska: *Connections between along-strike variations in seismic structure and earthquake behavior at the Alaska Peninsula subduction zone*



ABHIJIT GHOSH

Dr. Abhijit Ghosh is an Assistant Professor in the Department of Earth Sciences, University of California, Riverside. He earned his PhD in Geophysics from the University of Washington, Seattle. He was a GeoPRISMS Postdoctoral Fellow in the University of California, Santa Cruz. Abhijit is a seismologist interested in

understanding wide spectrum of fault behaviors in a holistic way. His research focus includes slow earthquakes, array seismology and earthquake interactions. He designs and carries out seismic experiments in different parts of the world including Alaska, Nepal, New Zealand, Cascadia and California.

Public Lecture: *How earthquake faults shift gears*

Technical Lecture: *Broad spectrum of fault slip: Fast, slow and everything in between*

Interested in hosting a GeoPRISMS distinguished speaker? Apply before July 1, 2018!

Any US institution interested in inviting a DLP speaker may apply via the GeoPRISMS website:

<http://geoprisms.org/education/distinguished-lectureship-program/>

Applications are due by July 1, 2018 for speakers visiting in Academic Year 2018 - 2019 (Fall 2018 - Spring 2019). Please note that spots are limited as speakers are only available to visit approximately four institutions apiece. Institutions catering to the general public or not currently involved with GeoPRISMS research are strongly encouraged to apply, including those granting undergraduate or masters degrees, as well as those with PhD programs. Institutions may request a technical and/or public lecture. Public lectures outside of established geoscience departments (including libraries and museums) are encouraged to apply, with help from the GeoPRISMS Office to coordinate. The GeoPRISMS Office will cover airfare for speakers' travel and will coordinate travel and off-site logistics. Host institutions are responsible for the speaker's local expenses (i.e. hotel and meals) for the duration of the visit.

