



The Summer of Applied Geophysical Experience
Newsletter, Vol 2, No 1
January 2022

Dear SAGE alumni and friends,

Happy New Year! As another pandemic year slips by, the SAGE faculty have been busily preparing for our return to the field and SAGE 2022. We are excited to continue teaching and conducting research in the beautiful Valles Caldera of Northern New Mexico! Let your friends and colleagues know the website is open for applications. A flyer, convenient for distribution, is below.

In preparation, two areas have received much attention in the past year: curriculum and faculty. While the content of SAGE remains on point, we have long struggled with how to engage students sitting in a cold, dark classroom while they are yearning to be outside in the splendid New Mexico wild lands. While online learning has become too familiar as of late there are many aspects that are a benefit to SAGE. By providing introductory online course material and framing SAGE with both an initial cornerstone project and a final capstone presentation, we can better prepare students with varying backgrounds for SAGE. We also have been experimenting with integrating and interspersing lectures with field work.

The SAGE family continues to grow, and we are delighted to introduce several new members of the SAGE faculty. The new SAGE seismic team includes David Lumley (UT Dallas), Lee Liberty (Boise State), Pieter Share (Oregon State Univ.), Akram Mostafanejad (IRIS PASSCAL), and Nadine Igonin (UT Austin). David jumped in during SAGE 2019 and helped out with the Vibe acquisition along the active seismic line. Lee has a long history with field camps having taught the Colorado School of Mines and Boise State Univ. field camp along with an SEG Geoscience Without Borders camp in Thailand. Pieter (SAGE 2009) brings expertise in fault-zone imaging using a range of geophysical methods while Akram (SAGE 2013) has broad expertise in earthquake seismology and seismic instrumentation; together they will be enhancing the passive-seismic component of SAGE that started in 2019. Finally, the SAGE seismic team welcomes Nadine (UT Austin), a post-doc who recently completed her PhD at University of Calgary on hydraulic-fracturing induced seismicity. Another new face at SAGE is Megan Anderson (WA State Geological Survey), who applies geophysical methods to a range of seismic hazard and geologic mapping problems and will be working with John Ferguson to realize the most complete gravity dataset in New Mexico. Oliver Azevedo (SAGE 2019) will be filling the huge shoes of camp manager.

SAGE also saw some losses in 2021. It is with sadness that we report the death of Shawn Bieler, a founding faculty of SAGE, former co-director, and teacher of seismic and potential fields methods to hundreds of students. He will be missed but will always be a part of SAGE. Matt Ralston stepped down as a faculty member this past year. Matt was instrumental in maintaining a successful seismic processing program.

Wishing you all a safe and healthy 2022. If you find yourself in New Mexico mid-June to mid-July, please stop by and say hi!

The SAGE faculty

Louise Pellerin
Darcy K McPhee
John Ferguson
Paul Bedrosian

Shari Kelley
Jared Peacock
Danny Feucht
Akram Mostafanejad

David Lumley
Megan Anderson
Oliver Azevedo
Pieter-Ewald Share

Lee Liberty
Nadine Igonin



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SAGE can always use your support, and there are several ways to give:

- SAGE operational fund: <https://www.summerofappliedgeophysicalexperience.org/> - scroll down to donate through PayPal. SAGE is a 501c3 charitable organization
- Society of Exploration Geophysicists (SEG) endowment founded by Geophysical Pursuits: <https://donate.seg.org/field-camps> and click on 'SAGE Field Camp Grant – Endowment'
- American Geophysical Union (AGU) endowment founded by founding SAGE faculty Bob Riecker: <https://www.agu.org/Give-to-AGU/Giving/> and pull-down menu for the 'Robert Riecker Fund'

SUMMER OF APPLIED GEOPHYSICAL EXPERIENCE (SAGE) 2022!

SAGE is a four-week research and education program in exploration geophysics for graduate & undergraduate students, and working professionals based in Santa Fe, NM, USA

Application deadline March 15, 2022

SAGE students, faculty, teaching assistants and visiting scientists acquire, process and interpret reflection/refraction seismic, magnetotelluric/electromagnetic, potential fields, and near-surface data within the magnificent Valles Caldera National Preserve.

- **Arrival:** June 14th, Santa Fe, New Mexico. **Departure:** July 12th.
 - **Fee:** A registration fee of \$1,000 is required from all students, including domestic and foreign undergraduates, graduate students and professionals. Registration fee covers room and board. Travel to Santa Fe is NOT included. Some small grants are available.
 - **Application:** Letter of interest, two references, and complete transcripts documenting the required courses (unofficial copies are acceptable) submitted via the SAGE website
<https://SummerofAppliedGeophysicalExperience.org/>
 - **Requirements:** Proof of medical insurance and COVID vaccination, and registration fee must be submitted following acceptance.
 - **Camping:** SAGE students will be camping for ~12 days during field work just outside the Valles Caldera National Preserve; the remainder of the time we will be staying at the Santa Fe Indian School. Bring personal camping equipment; food and camping support will be provided by a local outfitter.
 - **Application deadline:** Tuesday, March 15, 2022
 - **Selection timeline:** Announcements sent via email by March 31, 2022.
 - **Prerequisites:** Students should have a quantitative background and some introduction to geophysics, though they need not be geophysics majors. We particularly welcome math/physics/engineering majors and other students considering careers in geophysics. Students should have successfully completed a minimum of one year (two semesters or three quarters) of physics (through electricity & magnetism) and a minimum of three semesters of calculus (four preferred). Structural geology and/or introductory geophysics are recommended but not required.
- Applications are encouraged from qualified:**
- Undergraduate students in their junior/senior year with the prerequisite physics and math courses,
 - Graduate students in all stages of their careers, and
 - Professionals from academia and industry.

For details see

<https://SummerOfAppliedGeophysicalExperience.org/>

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