

# Quentin Higuieret

**Nationality:** French  
**Born on:** May 9, 1997  
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## Tertiary Education

**Grenoble Alpes University, France** February 2022 – Present  
Ph.D. in Geophysics  
Co-advisors: Prof. Florent Brenguier and Prof. Aurelien Mordret

**Strasbourg University, France** September 2020 – June 2021  
M.S. in Geophysics  
Co-advisors: Prof. Florent Brenguier and Prof. Aurelien Mordret

## Research Experience

**Doctoral Research** February 2022 – Present

- Modelling body-waves in noise correlations using full waveform simulation
- Noise-based seismic monitoring using ballistic waves on the San Jacinto Fault (CA).
- Detection of microseismicity along the San Jacinto Fault (CA).

**Master's Research** February 2021 – June 2021

- Analysis of earthquakes on the San Jacinto Fault (CA) using seismic stereometry.

## Field Experience

- Led a small team to deploy and manage 300 seismic stations for the FaultScan array along the San Jacinto Fault Zone.
- Coordinated daily operations, including setup, maintenance, and data acquisition to ensure array functionality.

## Teaching

Courses on seismology and seismic imaging for Master's students (40 hours).

# Activities

## PhD Delegate

August 2022 – July 2023

Leadership role (80 members, \$6k annual budget)

- Organized the 2023 annual PhD congress, including 70 PhD students oral submissions.

## Journal Articles

- Higueret Quentin**, Sheng Yixiao, Mordret Aurelien, Brenguier Florent, Boué Pierre, Fichtner Andreas, Vernon Frank, Krischer Lion, Hollis Dan, Aubert Coralie, Ben-Zion Yehuda (2024). “Body-waves from train noise correlations: Potential and limits for monitoring the San Jacinto Fault, CA”. In: *Geophysical Journal International*, ggae409.
- Paris Nicolas, Itoh Yuji, Brenguier Florent, Wang Qing-Yu, Sheng Yixiao, Okada Tomomi, Uchida Naoki, **Higueret Quentin**, Takagi Ryota, Sakai Shin’ichi, Hirahara Satoshi, Kimura Shu’utoku (2024). “Coseismic crustal seismic velocity changes associated with the 2024 Mw 7.5 Noto earthquake, Japan”. In: *Earth, Planets and Space*. Submitted.
- Sheng Yixiao, Brenguier Florent, Mordret Aurélien, **Higueret Quentin**, Aubert Coralie, Pinzon-Rincon Laura, Hollis Daniel, Vernon Frank, Wyatt Frank, Ben-Zion Yehuda (2024). “In situ velocity-strain sensitivity near the San Jacinto Fault Zone analyzed through train tremors”. In: *Geophysical Research Letters* 51.15, e2024GL110113.
- Sheng Yixiao, Mordret Aurélien, Brenguier Florent, Tomasetto Lisa, **Higueret Quentin**, Aubert Coralie, Hollis Dan, Vernon Frank, Ben-Zion Yehuda (2024). “Tracking Seismic Velocity Perturbations at Ridgecrest Using Ballistic Correlation Functions”. In: *Seismological Research Letters* 95.4, pp. 2452–2463.
- Sheng Yixiao, Mordret Aurélien, Sager Korbinian, Brenguier Florent, Boué Pierre, Rousset Baptiste, Vernon Frank, **Higueret Quentin**, Ben-Zion Yehuda (2022). “Monitoring seismic velocity changes across the San Jacinto Fault using train-generated seismic tremors”. In: *Geophysical Research Letters* 49.19, e2022GL098509.

## Conference Proceedings

- Brenguier Florent, Sheng Yixiao, **Higueret Quentin**, Mordret Aurélien, Vernon Frank, Hollis Dan, Aubert Coralie, Pinzon-Rincon Laura, Ben-Zion Yehuda (2023). “A long-term, 300 nodes seismic array to monitor seismic velocities across the San Jacinto Fault (South. Cal.)” In: *AGU Fall Meeting Abstracts*. Vol. 2023. 396, S23D–0396.
- Higueret Quentin**, Sheng Yixiao, Mordret Aurélien, Brenguier Florent, Boué Pierre, Fichtner Andreas, Vernon Frank, Ben-Zion Yehuda, Hollis Dan, Aubert Coralie (2023). “Modelling Body-Waves in Noise Correlations: Seismic Velocity Monitoring at the San Jacinto Fault, CA”. In: *AGU Fall Meeting Abstracts*. Vol. 2023, S13A–03.
- Hollis Dan, Aubert Coralie, Brenguier Florent, Sheng Yixiao, Vernon Frank, Ben-Zion Yehuda, Mordret Aurélien, Pinzon-Rincon Laura, Jung Axel, **Higueret Quentin** (2023). “Field Management of a Long-Term, Large-N Nodal Seismic Array”. In: *AGU Fall Meeting Abstracts*. Vol. 2023, S13A–07.
- Sheng Yixiao, Mordret Aurélien, Tomasetto Lisa, **Higueret Quentin**, Brenguier Florent, Boué Pierre, Vernon Frank, Hollis Dan, Aubert Coralie, Ben-Zion Yehuda (2023). “Body-wave-based seismic velocity perturbation analyses in Ridgecrest, CA”. In: *AGU Fall Meeting Abstracts*. Vol. 2023, S12A–07.

**Higueret Quentin**, Sheng Yixiao, Mordret Aurélien, Boué Pierre, Brenguier Florent, Fichtner Andreas, Vernon Frank, Ben-Zion Yehuda (2022). “Long-range Noise Correlation Modeling for Seismic Velocity Monitoring of Fault Zones.” In: *AGU Fall Meeting Abstracts*. Vol. 2022, S12A–06.