

Employment

University Researcher

Department of Geosciences and Geography
University of Helsinki
Finland
1 Oct 2023 → present

Institute of Seismology

University of Helsinki
Helsingin yliopisto, Finland
1 Oct 2023 → present

Geophysicist & Research Engineer

Sisprobe Inc
Meylan, France
1 Jan 2018 → 1 Jan 2023

Post-Doctoral Researcher

Université Grenoble-Alpes
France
1 Jan 2017 → 1 Jan 2018

Software Engineer

Systemel
France
1 Jan 2012 → 1 Jan 2016

Qualifications

Computer Science, MsC, Université de Franche-Comté
2005 → 2007
Award Date: 30 Jun 2007

Geophysics, Msc, Université Grenoble-Alpes
2016 → 2017

Computer Science, PhD, Contributions à l'analyse de systèmes par approximation d'ensembles réguliers, Université de Franche-Comté
2007 → 2011

Publications

A 3D shear wave velocity model from ambient noise surface wave tomography in the Helsinki area

Courbis, R., Hillers, G., Vuorinen, T., Rintamäki, A., Komminaho, K., Korja, A., Heinonen, S. & Tiira, T., 2024.

FLEX-EPOS mobile Finnish Seismic Instrument Pool: FINSIP

Courbis, R., Hillers, G., Koivisto, E., Haapanala, P., Kukkonen, I., Ding, Y., Fordell, T., Heinonen, S., Junno, N., Juntunen, A., Komminaho, K., Kozlovskaya, E., Leveinen, J., Moisio, K., Näränen, J., Oksanen, T., Skyttä, P., Tanskanen, E. & Tiira, T., 2024, p. 46. 1 p.

The establishment of the Finnish mobile seismic instrument pool

Courbis, R., Hillers, G., Koivisto, E., Haapanala, P., Kukkonen, I., Ding, Y., Fordell, T., Heinonen, S., Junno, N., Juntunen, A., Komminaho, K., Kozlovskaya, E., Leveinen, J., Mäkinen, J., Luhta, T., Moisio, K., Näränen, J., Oksanen, T., Tanskanen, E. & Tiira, T., 2024, *NSG 2024 30th European Meeting of Environmental and Engineering Geophysics*. European Association of Geoscientists and Engineers, EAGE, (Proceedings / EAGE).

The mobile Finnish Seismic Instrument Pool

Courbis, R., Hillers, G., Koivisto, E., Haapanala, P., Kukkonen, I., Ding, Y., Fordell, T., Heinonen, S., Junno, N. & Juntunen, A., 2024.

Ambient noise monitoring of the Bayou Corne sinkhole evolution

Mordret, A., Lavoué, A., Witten, B., Baig, A., Beaupretre, S., Courbis, R. & Gradon, C., 2023, p. EGU-4500.

Detecting earthen dam defects using seismic interferometry monitoring on Distributed Acoustic Sensing data

Mordret, A., Stork, A., Johansson, S., Lavoue, A., Beaupretre, S., Courbis, R., David, A. & Lynch, R., 2022, *EGU General Assembly Conference Abstracts*. p. EGU22-3728

Cover mapping using ambient noise surface wave tomography

Lavoué, A., Arndt, N., Lynch, R., Courbis, R., Mordret, A. & Beard, C., 2021, *82nd EAGE Annual Conference Exhibition*. Vol. 2021. p. 1-5 5 p.

Ambient Noise Rayleigh and Love Wave Tomography beneath the Sally Palladium Copper Deposit (Ontario, Canada)

Lavoué, A., Arndt, N., McBride, J., Mordret, A., Brenguier, F., Boué, P., Courbis, R., Beauprêtre, S., Beard, C. & Hollis, D., 2020, *NSG2020 3rd Conference on Geophysics for Mineral Exploration and Mining*. Vol. 2020. p. 1-5 5 p.

Monitoring near-surface pore-pressure variations using passive interferometric ballistic waves

Mordret, A., Brenguier, F., Courbis, R., Chmiel, M., Campman, X., Boué, P., Lecocq, T., Van der Veen, W. & Hollis, D., 2020, *SEG International Exposition and Annual Meeting*. p. D041S113R003

Noise-based ballistic wave passive seismic monitoring. Part 1: body waves

Brenguier, F., Courbis, R., Mordret, A., Campman, X., Boué, P., Chmiel, M., Takano, T., Lecocq, T., Van der Veen, W. & Postif, S., 2020, In: *Geophysical Journal International*. 221, 1, p. 683-691 9 p.

Noise-based ballistic wave passive seismic monitoring--Part 2: surface waves

Mordret, A., Courbis, R., Brenguier, F., Chmiel, M., Garambois, S., Mao, S., Boué, P., Campman, X., Lecocq, T. & Van der Veen, W., 2020, In: *Geophysical Journal International*. 221, 1, p. 692-705 14 p.

Ambient noise multimode Rayleigh and Love wave tomography to determine the shear velocity structure above the Groningen gas field

Chmiel, M., Mordret, A., Boué, P., Brenguier, F., Lecocq, T., Courbis, R., Hollis, D., Campman, X., Romijn, R. & Van der Veen, W., 2019, In: *Geophysical Journal International*. 218, 3, p. 1781-1795 15 p.

Monitoring and imaging water saturation variations using ballistic body-and surface-waves from seismic ambient noise correlations

Mordret, A., Courbis, R., Brenguier, F., Garambois, S., Mao, S., Boué, P., Campman, X., Lecocq, T., Van der Veen, W. & Chmiel, M., 2019, *AGU Fall Meeting Abstracts*. Vol. 2019. p. S33B-03

Monitoring of fields using body and surface waves reconstructed from passive seismic ambient noise

Brenguier, F., Mordret, A., Lynch, R., Courbis, R., Campbell, X., Boué, P., Chmiel, M., Mao, S., Mao, S. & Takano, T., 2019, *SEG International Exposition and Annual Meeting*. p. D043S104R007

Noise-based Ballistic Body-wave Passive Seismic Monitoring.

Brenguier, F., Courbis, R., Mordret, A., Campman, X., Boué, P., Chmiel, M., Takano, T., Lecocq, T., Van der Veen, W. & Hollis, D., 2019.

Vs imaging from ambient noise Rayleigh wave tomography for oil exploration in Nevada, USA

Boué, A., Courbis, R., Chmiel, M., Arndt, N., Lecocq, T., Mordret, A., Boué, P., Brenguier, F., Hollis, D. & Beauprêtre, S., 2019, *SEG Technical Program Expanded Abstracts 2019*. Society of Exploration Geophysicists, p. 5382-5385 4 p.

