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Investigating the effect of a heavy rainfall episode on the Mw4.9 earthquake of 11 November 2019 at Le Teil (France)

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André Burnol, Antoine Armandine Les Landes, Daniel Raucoules, Hideo Aochi, Julie Maury, et al.. Investigating the effect of a heavy rainfall episode on the Mw4.9 earthquake of 11 November 2019 at Le Teil (France). EGU 2023, Apr 2023, Vienne, Austria. , 2023, 10.5194/egusphere-egu23-8363 . hal-04058080

HAL Id: hal-04058080

<https://brgm.hal.science/hal-04058080v1>

Submitted on 4 Apr 2023

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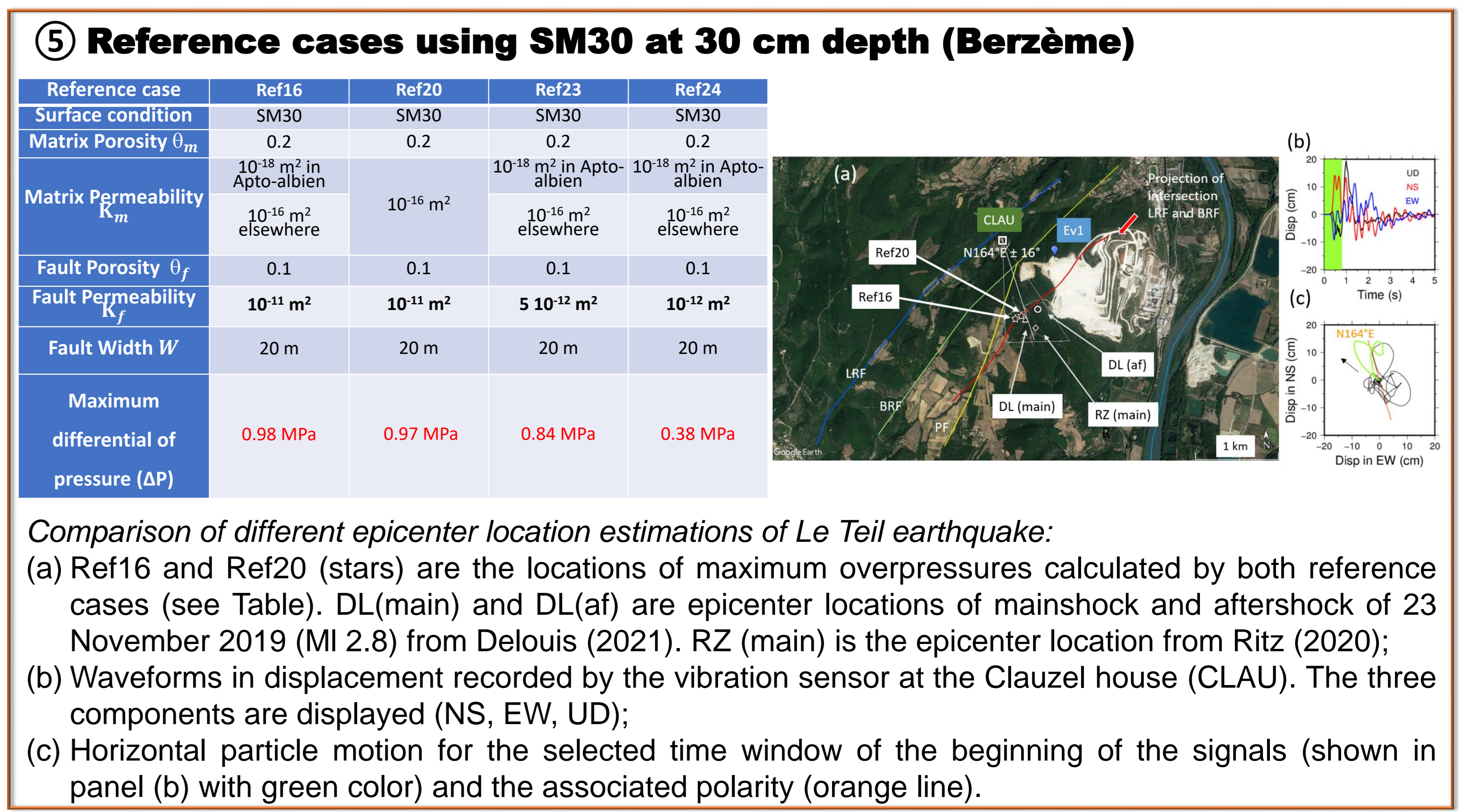
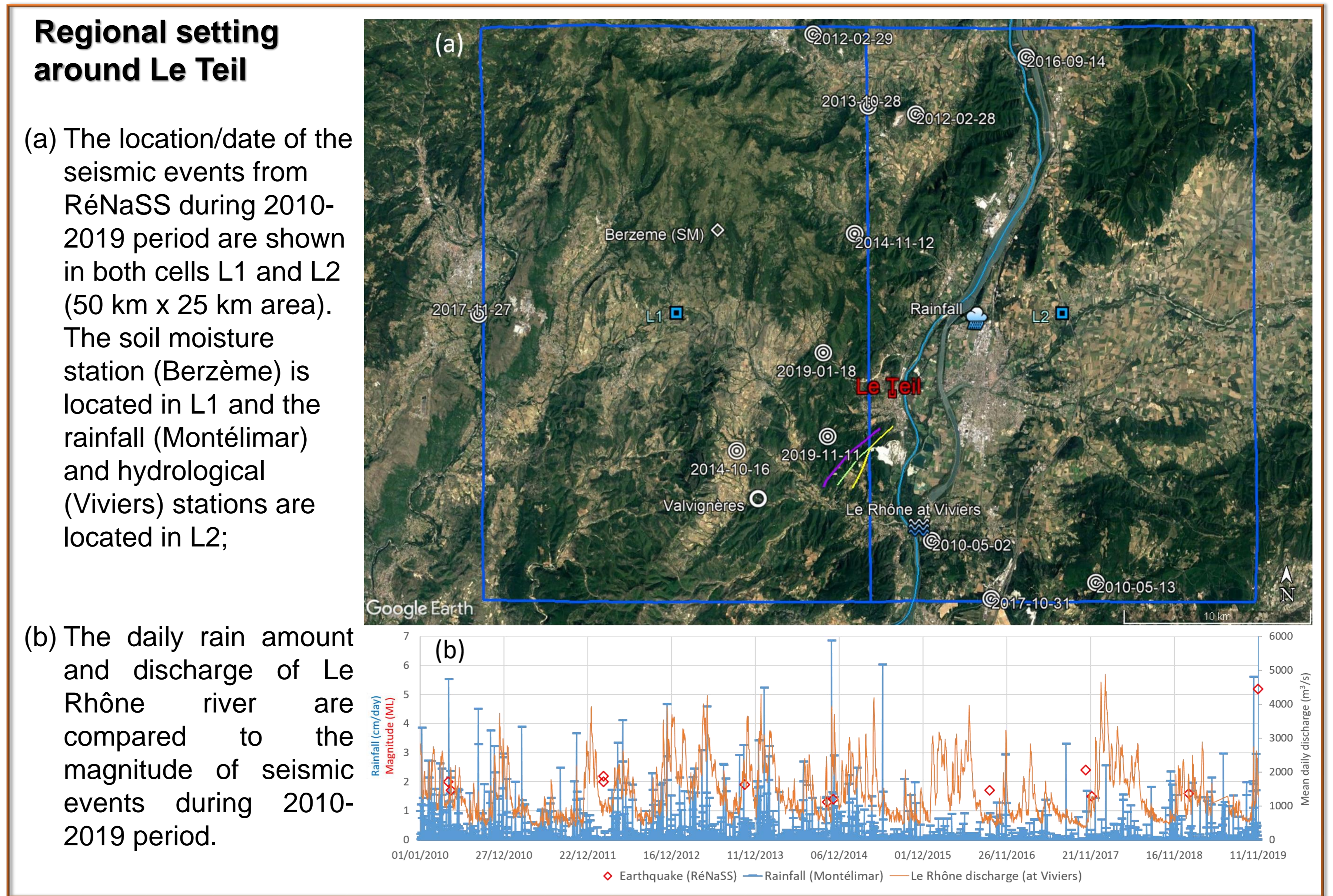
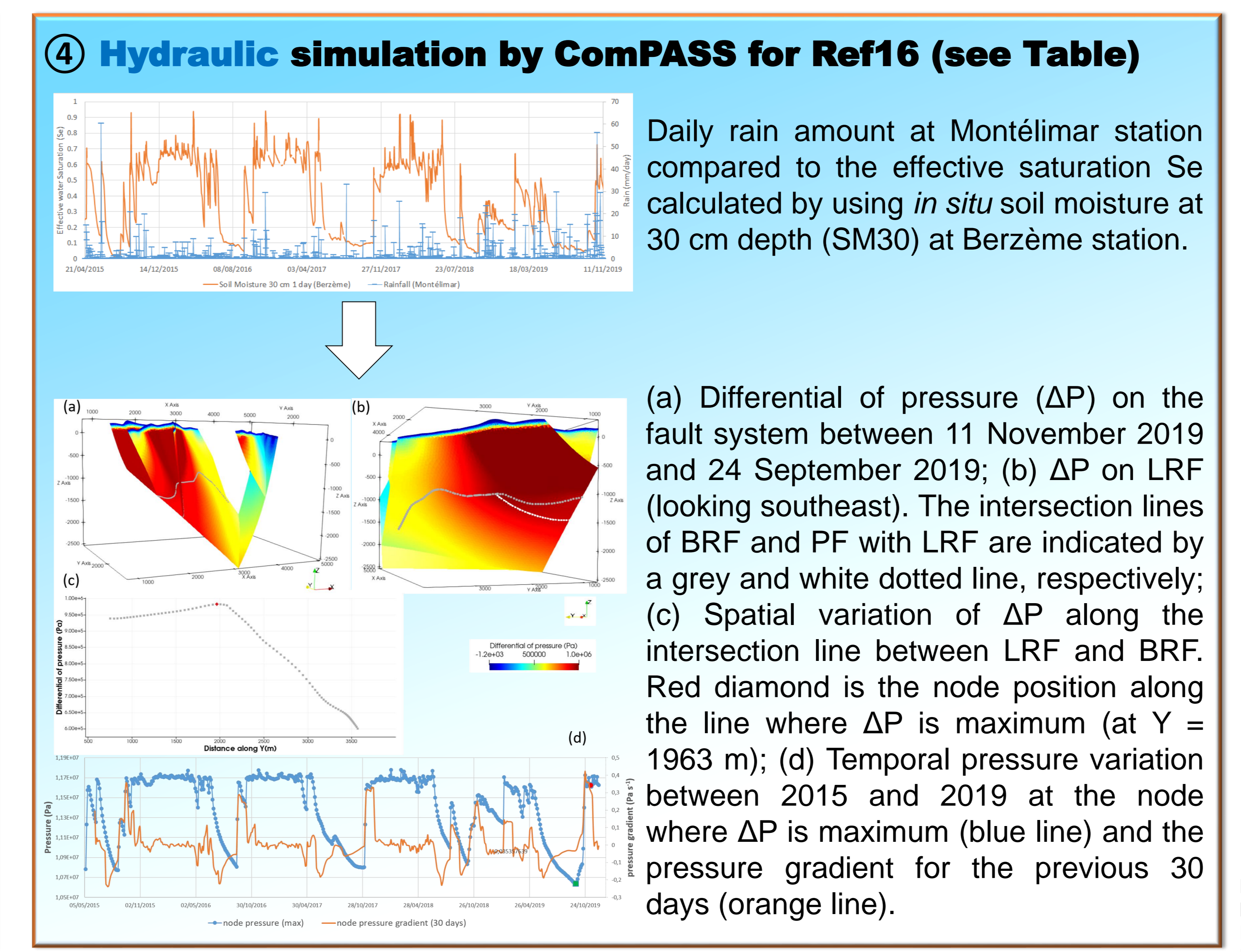
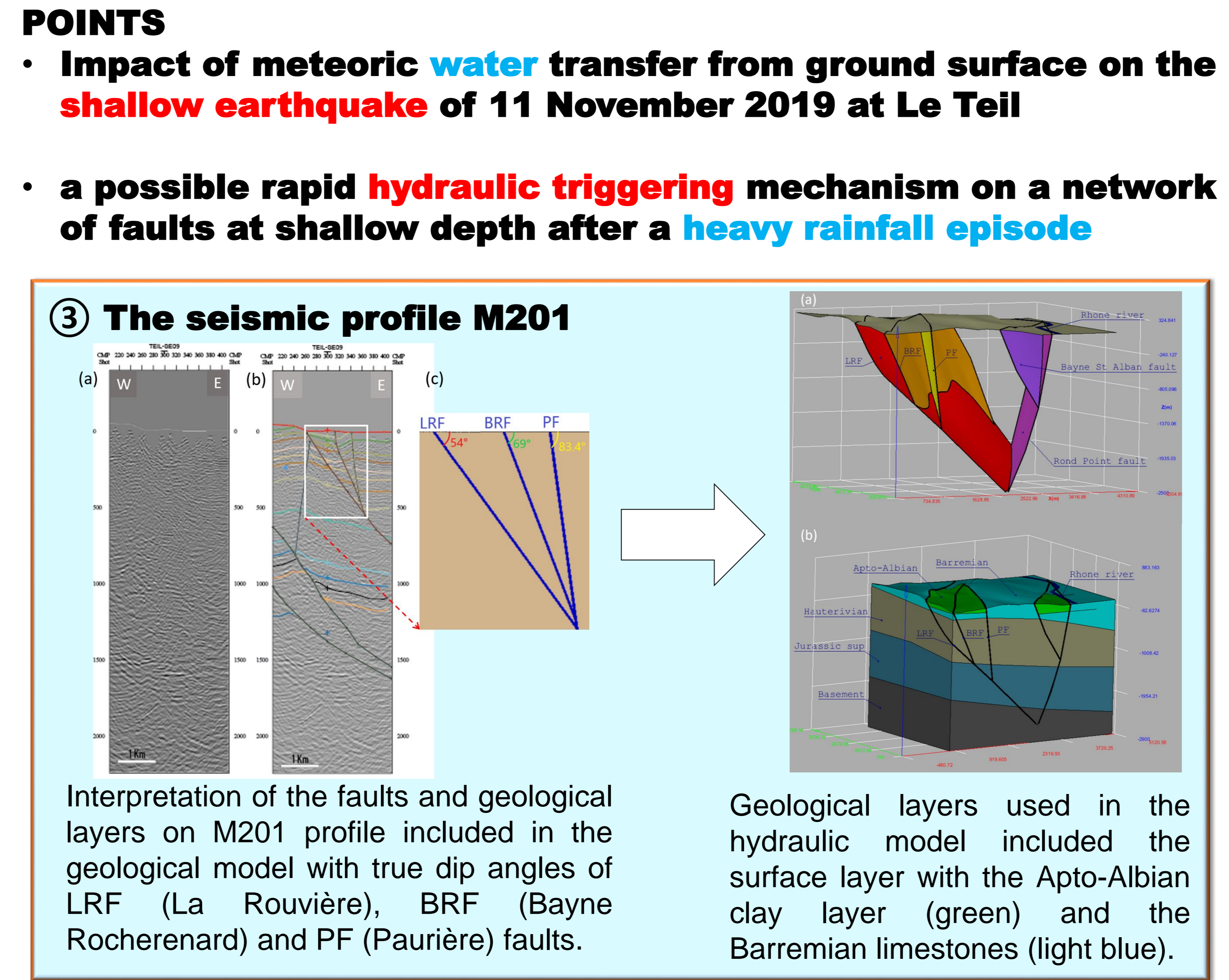
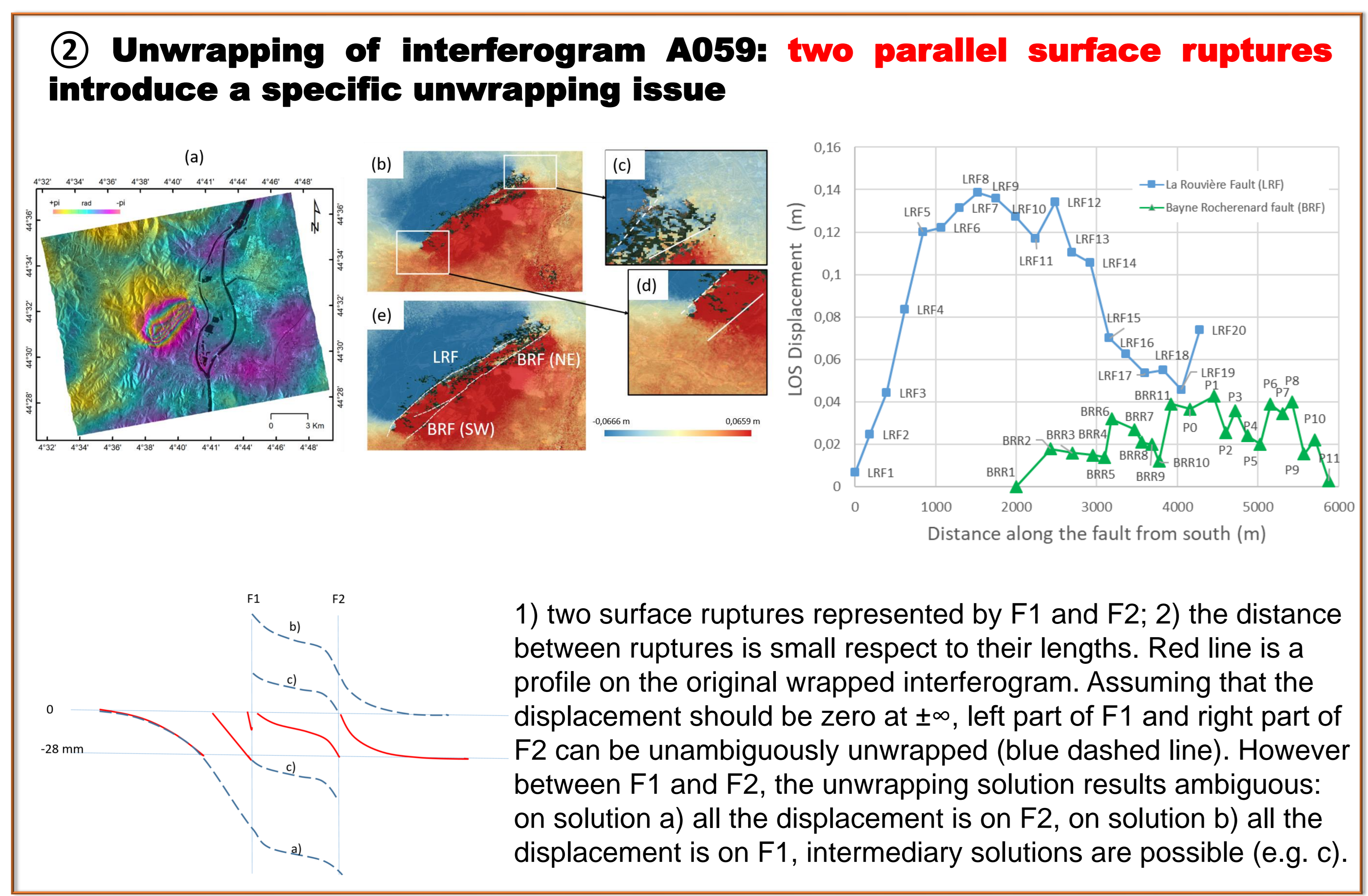
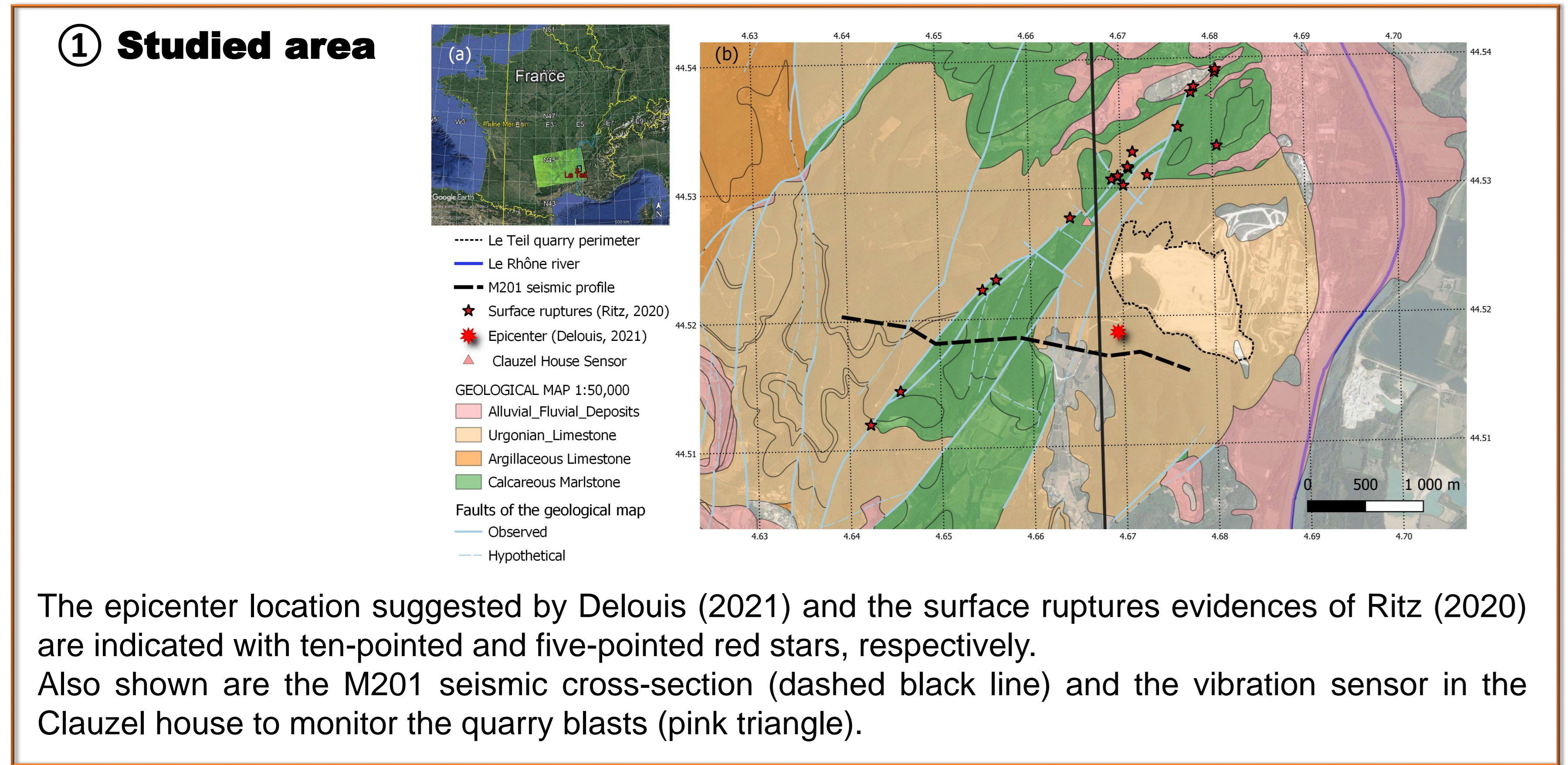
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A. Burnol, A. Armandine Les Landes, D. Raucoules, H. Aochi, J. Maury, C. Allanic, and B. Bazargan-Sabet
BRGM (French Geological Survey)

Let's think a hydraulic triggering for this shallow earthquake using hydraulic simulations based on a new geological model!



The simulated pore pressure gradient shows a local peak just before the 2019 earthquake at the intersection of two faults BRF and LRF, very close to the hypocenter locations determined by other seismological studies.

Delouis, B.; Oral, E.; Menager, M.; Ampuero, J.-P.; Trilla, A.G.; Régner, M.; Deschamps, A. Constraining the Point Source Parameters of the 11 November 2019 Mw 4.9 Le Teil Earthquake Using Multiple Relocation Approaches, First Motion and Full Waveform Inversions. *Comptes Rendus Géoscience* 2021, doi:10.5802/crgeos.78
Ritz, J.-F.; Baize, S.; Ferry, M.; Larroque, C.; Audin, L.; Delouis, B.; Mathot, B.; Mathot, B.; Mathot, B. Surface Rupture and Shallow Fault Reactivation during the 2019 Mw 4.9 Le Teil Earthquake, France. *Communications Earth & Environment* 2020, 1, 10, doi:10.1038/s43247-020-0012-z