

Physics - Geophysics; University of Texas Austin Researcher Reports Recent Findings in Geophysics (Streaming seismic attributes)

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English

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2023 OCT 3 (VerticalNews) -- By a News Reporter-Staff News Editor at Physics Week -- Data detailed on geophysics have been presented. According to news originating from Austin, Texas, by VerticalNews correspondents, research stated, "Local seismic attributes play an important role in seismic processing and interpretation."

Our news reporters obtained a quote from the research from University of Texas Austin: "However, the iterative regularized inversion required by the calculation of local seismic attributes makes it prohibitively expensive for real-time processing tasks. In this paper, we present an efficient method for estimating local seismic attributes, including local frequency and local spectrum, using streaming computation."

According to the news editors, the research concluded: "In our proposed approach, the local attributes can be computed by updating the previously calculated attribute value using a new data point at a time, making it unnecessary to conduct the iterative inversion and thus significantly speeding up the computation for online usage. We apply the proposed method to both synthetic and field data to demonstrate its efficiency and effectiveness to accurately characterize nonstationary seismic signals."

For more information on this research see: Streaming seismic attributes. GEOPHYSICS, 2023. The publisher for GEOPHYSICS is Society of Exploration Geophysicists.

A free version of this journal article is available at <https://doi.org/10.1190/geo2023-0281.1>.

Our news journalists report that more information may be obtained by contacting Zhicheng Geng, University of Texas Austin, John A. and Katherine G. Jackson School of Geosciences, **Bureau of Economic Geology**, Austin, Texas, United States. Additional authors for this research include Sergey Fomel, Yang Liu, Qinghan Wang, Zhisheng Zheng, Yangkang Chen.

Keywords for this news article include: University of Texas Austin, Austin, Texas, United States, North and Central America, Geophysics.

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