

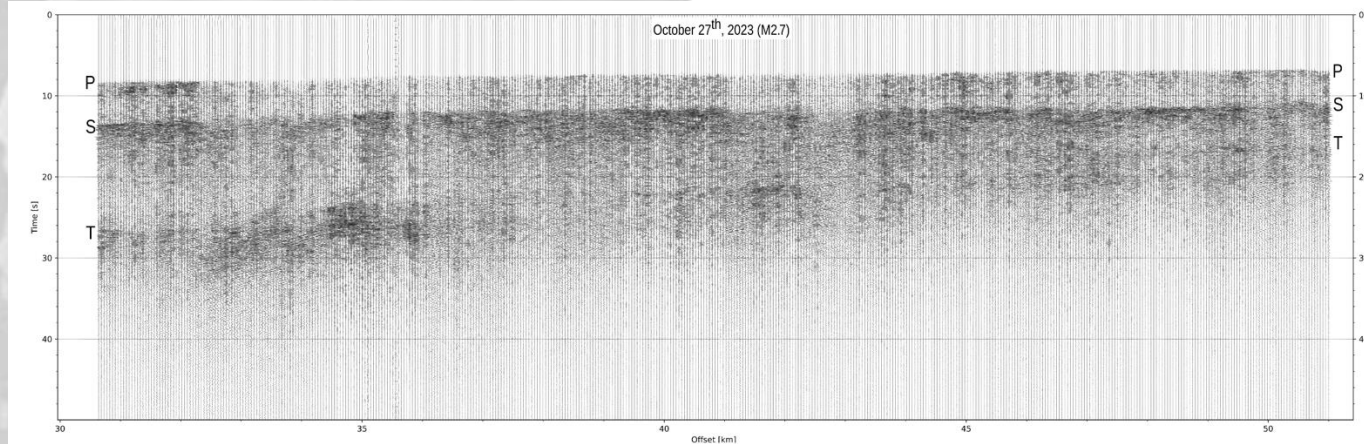
EARTH SYSTEMS SEMINARS



DISTRIBUTED ACOUSTIC SENSING (DAS)

WHAT'S THIS
ABOUT?

Fiber optics is a highly efficient technology for transmitting data over long distances, having quickly surpassed other alternatives. However, intrinsic imperfections in optical fibers lead to light scattering into different modes (Rayleigh, Stokes and Raman), affecting both the range and signal integrity. Analysis of the fraction of light reflected back to the emitter allows the identification of sections of the fiber subject to mechanical stress or variations in temperature and pressure. In this seminar we will address Distributed Acoustic Sensing (DAS) technology and systems based on Rayleigh scattering phase measurement (Φ -OTDR), capable of detecting apparent deformations over hundreds of kilometers of optical fiber.



Afonso Loureiro
(Arditi, IDL)

May 28
Wednesday: 14:00

PASS: SES2024IDL

<https://videoconf-colibri.zoom.us/j/89018419156>



or IDL room
1.1.37 (C1)