

# Gulliver Seminar

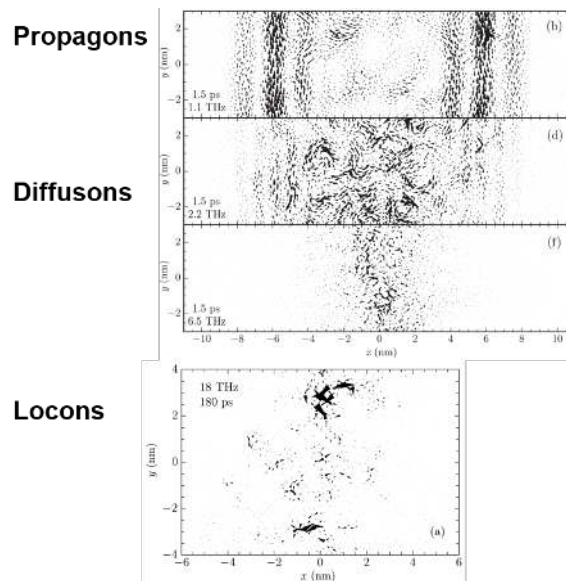
13 December, 2021 at 11:30

## Anne Tanguy

*Institut National des Sciences Appliquées, LaMCoS  
Lab-ONERA*

### Modelling the thermal and mechanical response of glasses, including different dissipation processes

Glasses are disordered materials, and thus their vibrational as well as thermal properties are very different from the crystal. In this context, it is important to revise the usual description of solids based on wave vector calculations. We will first discuss the characteristics of the normal modes in glasses and their effect on the vibrational density of states (Boson Peak), as well as on their rheological properties (theory of "harmonic dissipation") and thermal transport (thermal conductivity). We will then discuss anharmonic processes, especially those based on the submicrometric plastic response of glasses and discuss possible constitutive laws at a continuum scale, able to describe the large scale mechanical response including dissipative anharmonic processes.



Planning: [www.gulliver.espci.fr](http://www.gulliver.espci.fr)

Information: [joshua.mcgraw@espci.fr](mailto:joshua.mcgraw@espci.fr) and [matthieu.labousse@espci.fr](mailto:matthieu.labousse@espci.fr)

Remote connection: [Click here](#); ID (835 9581 6412); pw (399084)