

## Hypersonic waves in glasses

Last Updated Friday, 31 July 2015

The lack of long-range structural order in amorphous materials induces thermodynamic anomalies, whose impact dominates at length scales comparable to interatomic distances. We report in Nature Communications a study of mesoscopic elastic domains by means of a broadband version of picosecond photo-acoustics, developed to coherently generate and detect hypersonic sound waves in the sub-THz region with unprecedented sampling efficiency. We identify a peculiar behaviour of the sound attenuation, ruled by a fractal frequency dependence.