LENS/CMP Seminar

November 12, 2021

Speaker: Leandro Fosque, Indiana University

Title: **"Studies on Quasicritical Behavior in Brain Dynamics"**

Abstract: The study of avalanche dynamics in biological neural networks has opened a plethora of techniques for the understanding of brain dynamics. One of these major results is the study of (quasi)critical exponents given by these avalanches. Experimental results have shown that these quasicritical exponents move along a scaling line (Fontenele et al 2019, Fosque et al 2021) giving evidence to the framework of quasicriticality (Williams-Garcia et al 2014). This novel organizing principle for brain function, rooted on non-equilibrium statistical mechanics, relates information processing and scaling properties of brain activity to brain connectivity, and we will show its application to non-human and human living systems.