University of Crete
Department of Physics

Physics Colloquium

Thursday, 26 November 2026 | 17:00 – 18:00, Seminar Room 3rd Floor

Measurement-induced universal phenomena: theoretical and experimental prospects

Dr. Sara Murciano

LPTMS, CNRS & Université Paris-Saclay, France

ABSTRACT

Quantum critical systems constitute appealing platforms for exploring novel measurement-induced phenomena due to their intrinsic sensitivity to perturbations. I will introduce the physical ideas behind measurement-altered criticality, explaining how local measurements modify long-distance correlations and universal properties. In the second part, I will discuss their experimental realization in Rydberg atom chains near an Ising quantum phase transition, presenting preliminary results and the challenges of connecting theoretical predictions with experimental observations.