



University of Crete
Department of Physics



2025 Nick Kylafis Lecture

Joint Physics & IA/FORTH Colloquium

Wednesday, 29 October 2025 | 14:00 – 16:00, Amphitheater “G. Lianis” &

New Horizons in Extreme Electrodynamics of Black Holes and Neutron Stars

Prof. Roger Blandford

Stanford University, USA

ABSTRACT

This is a time of rapid, largely unscripted discovery in extreme electrodynamics, at scale involving up to ~ 100 GT magnetic field, $\sim 10^{22}$ V potential difference, $\sim 10^{40}$ K temperature, associated with black holes and neutron stars. Astrophysical manifestations include Fast Radio Bursts, Gamma Ray Bursts, Ultra High Energy Cosmic Rays, sources of gravitational radiation and direct images of black holes. A brief overview, connecting to the physics being revealed by particle accelerators and light sources, will be given.

Join via ZOOM at:

<https://uoc-gr.zoom.us/j/85327652058?pwd=BHGUQCeqHG8mrTjvMZObIV0qTqseVv.1>