



University of Crete
Department of Physics

Physics Colloquium

Thursday, 12 March 2020 | 17:00 – 18:00, Seminar Room, 3rd floor

The non-perturbative dynamics of gauge theories

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ABSTRACT

Gauge theories provide the theoretical framework we use to describe the world we live in. Even though they are the most successful physical theories ever invented, it is still not known how to use them in order to explain a plethora of important phenomena such as confinement of charges or the generation of a mass gap from massless constituents.

In this presentation I will take you on a trip through the modern developments in theoretical physics aiming to break this impasse. I will show how, based on very simple principles like symmetry and duality, remarkable progress has been made.