Contribution ID: **65** Type: **Talk**

Meson spectrum and low-energy constants in large-N QCD

Tuesday 4 November 2025 17:20 (20 minutes)

I will present new non-perturbative results about the meson spectrum and the low-energy constants of QCD in the 't Hooft large-N limit, $N \to \infty$ with $N_{\rm f}/N \to 0$. These are obtained from lattice Monte Carlo simulations of the Twisted Eguchi-Kawai (TEK) model up to $N = 841$.

More precisely, I will discuss the determination of radial Regge trajectories in the π and ρ channels; and the computation of the coefficients of the $1/N$ expansion of the chiral condensate, of the pion decay constant, and of the NLO coupling $\bar{\ell}_4$ up to $O(1/N^3)$ from the combination of TEK and standard finite-N results.

Parallel Session (for talks only)

Vacuum structure and confinement

Author: BONANNO, Claudio (IFT UAM/CSIC Madrid)

Co-authors: Dr GARCÍA PÉREZ, Margarita (IFT UAM/CSIC Madrid); Prof. GONZÁLEZ-ARROYO, Antonio (UAM & IFT UAM/CSIC Madrid); Prof. ISHIKAWA, Ken-Ichi (Hiroshima University); Prof. OKAWA, Masanori (Hiroshima University)

Presenter: BONANNO, Claudio (IFT UAM/CSIC Madrid)

Session Classification: Vacuum structure and confinement