

Contribution ID: 105

Type: **Parallel**

Phenomenology of the lightest hybrid meson nonet

Thursday, 22 June 2023 16:50 (20 minutes)

The state $\pi_1(1600)$ has exotic quantum numbers 1^{+-} and is rightfully treated as a hybrid (quark-antiquark-gluon) candidate. Recently, the $\eta_1(1855)$ has been experimentally discovered. It is then natural to expect that a whole nonet of hybrid states must exist: besides the two states above, a kaonic hybrid and a light η_1 hybrid should exist as well. Predictions and postdictions for the strong (PLB.B 834 (2022) 137478) and radiative (2302.07687) decays of hybrids are outlined. This may be useful for the future search of the yet undiscovered light isoscalar and kaonic hybrid states. The production of the in J/Ψ decays is also discussed.

Collaboration

Primary author: GIACOSA, Francesco (Jan Kochanowski University of Kielce)

Co-authors: FISCHER, Christian (University of Giessen); SHASTRY, Vanamali (Jan Kochanowski University of Kielce)

Presenter: GIACOSA, Francesco (Jan Kochanowski University of Kielce)

Session Classification: Parallel session B2