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Resonance couplings in $\eta^{(\prime)} \rightarrow \pi\pi\gamma$

„This talk deals with the coupling constants of the η and η' meson to a real photon and a ρ meson which are determined in a model-independent dispersive analysis. First, a general description of the decay amplitude is made by dispersion relations. These relations are based on the fundamental principles of unitarity (probability conservation) and analyticity (causality). Using the elastic unitarity relation, this description is characterized by the Omnès function and adapted to corresponding data of the differential decay width. By analytically continuing the amplitude to the second Riemann sheet, the coupling constants are finally determined. An extrapolation from the decay data of η , which is difficult due to the small measuring range, is carried out using the coupling ratio extracted from mixing parameters.“

