

Strange meson spectroscopy –from COMPASS to AMBER

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While the excitation spectrum of light-meson, which are composed of up and down quarks, is already mapped out rather well, the strange-meson spectrum still holds many surprises that we need to discover. At the COMPASS experiment at CERN, we study the spectrum of strange mesons using a negative kaon beam. The flagship channel is the decay to the $K^- \pi^- \pi^+$ final state, for which COMPASS has acquired the so-far world's largest data set. Based on this data set, we performed a partial-wave analysis in order to disentangle the produced mesons by their spin-parity quantum numbers and measure their masses and widths. In this talk, we will focus on recent results from this analysis including searches for a spin-exotic strange meson and we will give prospects for a high-precision measurement of the strange-meson spectrum at AMBER –a new QCD facility at CERN.

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