

# Light and Strange Mesons - Spectroscopic Methods and Results

*Monday, September 23, 2024 12:20 PM (40 minutes)*

The COMPASS experiment has collected the largest data set of diffractively produced excitations using beams of pions and kaons at 190 GeV energy. The search for resonances and new phenomena among light hadrons has been carried out for decades by partial wave analyses. The large amount of data available and the availability of large computing power have allowed the development of new statistical methods. We will present the challenges and the results of several new methods for light and strange hadrons. Among the new features observed are a strange meson spectrum revealing the existence of a crypto-exotic state and new excited light mesons up to masses of  $2.5 \text{ GeV}/c^2$ .

**Author:** PAUL, Stephan (Institut fuer Theoretische Physik, Technical University of Munich)

**Presenter:** PAUL, Stephan (Institut fuer Theoretische Physik, Technical University of Munich)