

Dibaryons and Hyperon EM Form Factors

Tuesday, September 24, 2024 10:50 AM (40 minutes)

In this talk I will make a short summary of the history of dibaryons, i.e. resonant states containing six quarks. Dibaryons are looked at sceptically (apart from the deuteron) because of the many states that have been predicted by theory and claimed in experiments that did not survive more careful investigations. I will give one example of an almost discovery and present a relatively recent discovery by the WASA@COSY experiment that has survived all tests, the $d^*(2380)$. I will also discuss very recent result on hyperon time-like electromagnetic form factors from the BESIII experiment via $e^+e^- \rightarrow \bar{Y}Y$ reactions, where Y denotes a hyperon, both in the strange and charm quark sector. These results show interesting and unexpected features that so far are unexplained.

Author: JOHANSSON, Tord (Uppsala University)

Presenter: JOHANSSON, Tord (Uppsala University)