

The legacy of the experimental hadron physics programme at COSY

Friday, 3 June 2016 11:30 (0:40)

Collaboration

Abstract content

The hadronic physics programme at the cooler synchrotron and storage ring (COSY) of the Forschungszentrum Juelich terminated at the end of 2014. This talk attempts to review the major achievements in the field realised over the twenty years of intense research activity. This includes the evidence for dibaryons seen in two-pion production, which was backed up by measurements of the analysing power in np elastic scattering, a completely revolutionised pp elastic scattering database, the measurement of the η mass with unparalleled precision and the direct measurement of the η' width, the study of the $\eta'p$ interaction and the clearest evidence for a possible ${}^3_{\eta}\text{He}$ mesic nucleus, the first full amplitude analysis in single pion production, the proof of the K^-p attraction from K^+K^- production, confirmation of the importance of the higher N^* in the $pp \rightarrow K^+\Lambda p$ reaction, and the unambiguous evidence for a cusp in the Λp distribution at the ΣN threshold.

*Sponsored by the European Physical Journal

Primary author(s) : WILKIN, Colin (University College London)

Presenter(s) : WILKIN, Colin (University College London)

Session Classification : Plenary Session