

A STUDY OF RESONANCE PRODUCTION IN THE REACTION $K^+p \rightarrow K^0p\pi^+$
FROM 3 TO 16 GeV/c*

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The reactions $K^+p \rightarrow K^{*+}(890)p$, $K^+p \rightarrow K^{*+}(1420)p$ and $K^+p \rightarrow K^0\Delta^{++}$ have been systematically studied for eleven incident momenta between 3,0 and 16.0 GeV/c. Cross sections, differential cross sections and density matrix elements are presented. For $K^{*+}(890)$ production the contributions from natural and unnatural parity exchanges have also been separated into $I=0$ and $I=1$ components. Effective trajectories have been extracted in the case of natural parity exchange, and also for Δ^{++} production.

- * The data used in the present analysis has been contributed by the following laboratories:
3.0, 3.5, 5.0, 8.25 GeV/c: Brussels-CERN;
4.3. GeV/c: University of Chicago;
4.6, 9.0, 12.0 GeV/c: LRL Berkeley;
10.0 GeV/c: Birmingham-Glasgow-Oxford;
12.7 GeV/c: University of Rochester;
16.0 GeV/c: Birmingham-Brussels-CERN-LPNHE (Paris)-Mons-Saclay.
Details of individual experiments are given in ref. [1].
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