

INTERACTIONS OF 1.5 GeV/c NEGATIVE K-MESONS IN HYDROGEN

CERN, University of Amsterdam, University of Glasgow<sup>1</sup>

With the CERN 32 cm hydrogen bubble chamber 190'000 photographs have been taken in a separated  $K^-$ -meson beam of  $1.49 \pm 0.01$  GeV/c momentum. In the single stage beam design a 9 m long electrostatic separator was used. One achieved a rejection ratio of  $\pi$ -mesons against K-mesons of  $\sim 10^4$ . The purity of the beam was 60 - 70 o/o, the background consisting mainly of  $\mu$ -mesons. The pictures contain in average 7  $K^-$ -mesons, so that there are 1000 events per millibarn cross section.

Results will be presented on inelastic partial cross sections, abundances and properties of resonant states and of  $\Xi$  particles.

1 List of Authors

CERN : W.A. Cooper, H. Courant<sup>✳</sup>, H. Filthuth, A. Minguzzi-Ranzi,  
A.M. Segar<sup>+</sup>, G.A. Snow<sup>✳✳</sup>, W. Willis<sup>++</sup>.

Amsterdam : E.S. Gelsema, J.C. Kluyver, A.G. Tenner.

Glasgow : K. Browning, I.S. Hughes, R. Turnbull.

✳ FORD Foundation Fellow

+ On leave from Rutherford Laboratory, Harwell, England

✳✳ National Science Foundation Senior Postdoctoral Fellow,  
on leave from Physics Dept., University of Maryland, College Park, Md.

++ FORD Foundation Fellow,  
on leave from Brookhaven National Laboratory, Upton, N.Y.