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SUMMARY OF DISCUSSION PROGRAMME FOR SESSION 8 - ELASTIC SCATTERING AND LOW MULTIPLICITIES

R.J.N. PHILLIPS

R.H.E.L.

The session began with elastic scattering. There were mini-reports on recent measurements of total cross-sections, slopes of $d\sigma/dt$ and real parts of forward amplitudes by M. Valdata, K. Goulianos and R. Biancastelli, respectively. These reports are not reproduced here, since the topics are covered in detail in the rapporteur talk by U. Amaldi. Theoretical mini-reports followed, by H.I. Miettinen on the shadow-scattering approach and by L. Caneschi on models for rising cross-sections. These and subsequent mini-reports are reproduced below.

Large-angle scattering was not discussed, since it has been assigned to session 10 on large- p_T processes; however, some new experimental results are mentioned in Amaldi's talk.

Diffraction dissociation was introduced, with a summary of the theoretical situation by K. Zalewski. New experimental data were surveyed by H. Lubatti; parts of his report refer to the nature of the produced systems, and were originally presented in the Hadron Spectroscopy discussions (session 7). These reports are directed to exclusive processes, since inclusive production is covered in session 9.

There followed three individual papers. B. Gobbi presented preliminary results from the Northwestern-Rochester-Carnegie-Mellon Collaboration on Coulomb

dissociation of pions and protons by nuclei (paper n°391). D.O. Caldwell described measurements of π^0_N and η^0_N total cross-sections via incoherent production in nuclei, by the Santa Barbara group (paper n°395); he also mentioned related measurements at the Tata Institute of ρ^0_N and f^0_N cross-sections (paper n°307). P. Carlson discussed the possible significance of Ericson fluctuations in large-angle and backward scattering. These papers are to appear in the normal journals, and are not reproduced here.

Discussion then turned to non-diffractive two-body and quasi-two-body processes. R. Diebold gave an extensive summary of new results from spectrometer systems. V.M. Kutjin reported new data on charge-exchange reactions at Serpukhov. G.A. Ringland surveyed some of the current difficulties of Regge cut models. Recent measurements with polarized targets were reported by W. Beusch, while K. Otter described some new results using bubble chambers. M. Aguilar-Benitez discussed recent amplitude analyses of hypercharge-exchange reactions, and C.W. Akerlof summarized new results on exotic-exchange processes. These mini-reports are reproduced below. Questions and discussion from the floor are regrettably not included explicitly, but speakers were asked to take account of the more important points in their written reports.