SUMMARY OF THE MOST SIGNIFICANT RESULTS REPORTED IN THIS SESSION

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This session has mostly been orientated towards experimental results, with only three theoretical presentations dedicated to a better comprehension of the significance of these results.

There has been a presentation of four new measurements of the μp structure function, by the Berkeley-FNAL-Princeton and EMC Collaborations on an iron nucleus, by the Bologna-CERN-Dubna-Munich-Saclay Collaboration on a carbon nucleus, and by the EMC Collaboration on a hydrogen target. Although all the data are preliminary, they agree reasonably well; they do not seem to reproduce the step observed in the W distribution (W is the mass of the hadronic final state) by the Michigan State University-FNAL Collaboration, and they show a flat behaviour at large Q^2 ($15 < Q^2 < 200$ GeV/c^2). E. Reya has explained what tests of QCD are provided by the nucleon structure function, and P. Castorina has presented an alternative description of deep inelastic structure functions which agree very well with the data.

J. Wotschack from CDHS has made a useful clarification of the Λ parameter determination. Part of the difference between the data of CDHS and BEBC is explained by the difference in data handling; namely, the number of flavours, radiative corrections, and effects of Fermi motion; and part of the difference comes from the fact that they do not rely on the same Q^2 range for their data.

New results on the elastic muoproduction of the J has been presented by the EMC Collaboration; their data support the Q^2 behaviour of the vector dominance model production and show an energy dependence that is rather flat above 100 GeV.

Recent measurements of the Drell-Yan pair production ($\pi^{\pm}$, $K^{\pm}$, $p^{\pm}$ induced data) from the CERN-Collège de France-Ecole Polytechnique-Orsay-Saclay Collaboration have been reported. Results on scaling, A dependence, absolute comparison of $\pi^{\pm}$, $K^{\pm}$, $p^{\pm}$ induced mass spectra, p_T dependence, and decay angular distributions have been presented. The Chicago-Illinois-Princeton Collaboration, using π-induced dimuons, have measured the helicity angular distribution; their data show evidence for a $\sin^2\theta$ term for x close to one. This is a new and interesting result which is consistent with a calculation based on QCD. E. Berger gave a comprehensive review of the significance of the experimental data and compared the information from deep inelastic scattering and the Drell-Yan pairs.

List of the papers presented

1. STRUCTURE FUNCTION IN μp SCATTERING
   Berkeley-FNAL-Princeton Collaboration
   (Presented by S.C. Loken, Berkeley)

2. DEEP INELASTIC SCATTERING OF 280 GeV/c μ^+ ON CARBON
Bologna-CERN-Dubna-Munich-Saclay Collaboration
(Presented by G. Smadja, Saclay)

3. DETERMINATION OF NUCLEON STRUCTURE FUNCTIONS FOR MUON SCATTERING ON A HEAVY TARGET
European Muon Collaboration
(Presented by P. Payre, CERN)

4. DEEP INELASTIC MUON SCATTERING ON HYDROGEN
European Muon Collaboration
(Presented by Y. Declais, LAPP, Annecy)

5. STRUCTURE FUNCTION IN μp SCATTERING AND MULTIMUON FINAL STATES
Michigan State University-FNAL Collaboration
(Presented by K.W. Chen, Michigan State University)

6. MULTIMUON PRODUCTION BY 280 GeV/c μ^+ ON CARBON
Bologna-CERN-Dubna-Munich-Saclay Collaboration
(Presented by I.A. Savin, Dubna)

7. J/ψ PRODUCTION IN MUON NUCLEON SCATTERING
European Muon Collaboration
(Presented by J. Davies, Oxford)

8. HOW TO TEST QCD WITH NUCLEON STRUCTURE FUNCTIONS
(Presented by E. Reya, DESY)

9. A REALISTIC DESCRIPTION OF DEEP INELASTIC STRUCTURE FUNCTION
P. Castorina, G. Nardulli and G. Preparata
(Presented by P. Castorina, Bari)

10. MUON PAIR PRODUCTION AT MASSES ABOVE 4 GeV/c^2 (DRELL-YAN CONTINUUM) BY $\pi^{\pm}$, $K^{\pm}$, $\bar{p}$, AND p of 200 GeV/c AND BY π^- OF 280 GeV/c ON PLATINUM AND HYDROGEN TARGETS
CEN Saclay-CERN-Collège de France-Ecole Polytechnique Palaiseau-LAL Orsay Collaboration
(Presented by Ph. Miné, Ecole Polytechnique)

11. EVIDENCE FOR LONGITUDINAL PHOTON POLARIZATION IN MUON-PAIR PRODUCTION BY PIONS
Chicago-Illinois-Princeton Collaboration
(Presented by J.E. Pilcher, Chicago)

12. QUARK STRUCTURE FUNCTIONS OF MESONS, DEEP INELASTIC SCATTERING AND THE DRELL-YAN PROCESS
(Presented by E.L. Berger, SLAC)

13. CHARM PRODUCTION ON νp WITH BEBC
Aachen-Bonn-CERN-Munich-Oxford Collaboration
(Presented by D. Lanske, Aachen)

14. STRUCTURE FUNCTION, Λ PARAMETER AND THE CALLAN-GROSS RELATION
CERN-Dortmund-Heidelberg-Saclay Collaboration
(Presented by J. Wotschack, Heidelberg)

15. STRANGE SEA DETERMINATION WITH DIMUONS PRODUCED ON ν-NUCLEON SCATTERING
CERN-Dortmund-Heidelberg-Saclay Collaboration
(Presented by J. Rander, Saclay)