I. INTRODUCTION

The seminar was convened by Prof. E. Fenyves, one of the two Vice-Directors of the Joint Institute at Dubna. It was attended by members of the Emulsion Groups in Czechoslovakia (Prague), East Germany (East-Berlin), Hungary (Budapest), Poland (Warsaw), Roumania (Bucharest) and the Soviet Union (Alma-Ata, Dubna, Moscow, Leningrad, Tashkent), as well as by Dr. D.H. Davis from University College London and Dr. W.O. Lock from CERN. Talks were given by people from most of the groups listed above, in which they spoke about their recent research work, mostly unpublished. On the last day four speakers (Dr. Davis, Prof. Fenyves, Dr. Lock and Prof. Zhdanov) attempted to describe work which might be done in the future using the emulsion technique.

II. LIST OF PAPERS GIVEN

The rapporteur's name is underlined in each case.

9th June

1. W.O. Lock (CERN)
   Experiments for the determination of the magnetic moments of the $\Lambda^0$ and $\Sigma^+$ hyperons using nuclear emulsions.

2. G. Boszoki, E. Fenyves, E. Gombosi, E. Nagy (Budapest)
   The study of diffraction scattering of 17 GeV pions on emulsion nuclei.

65/1392/5/ar.
3. G. Bozoki, E. Gombosi, E. Nagy (Budapest)
   A possible interpretation of single core jets.

4. G.B. Zhdanov, E. Gombosi, V.M. Maximenko, M.I. Tret'yakova,
   M.M. Chernyavsij, M.N. Shcherbakova (Moscow)
   Some tendencies in the future development of the photomethod in
   the study of nuclear interactions at high and very high energies.

10th June

1. D.H. Davis (U.C. London)
   Recent emulsion work with $K^-$ mesons.

2. N. Dalkhashav, S. Demianov, Z. Zlatanov, V. Iordanov, A. Zlateva,
   V.C. Pantuev, L. Rob, V.A. Sviridov, T. Todorov, D. Tuvdendorzh,
   Kh. Kazazirski, L.F. Kirillova, Z. Korbel, P. Markov, V.A. Nikitin
   (Dubna), L.N. Strunov, M.N. Khachaturian, L. Khristov, Kh. Chernov,
   M.G. Shafranova (Dubna - Prague collaboration)
   pp and pd elastic scattering at small angles in the energy range
   2 to 10 GeV.

   L.V. Sil'vestrov (Dubna), E. Skrypczak, Syui Yun-Chan, M.S. Khvas-
   ţunov (Dubna - Tashkent - Warsaw collaboration)
   Exposure of an emulsion stack together with a spark chamber.

4. V.A. Smirnitskij, A.O. Weisenberg (Moscow)
   Polarization of $\mu^+$ mesons in the case of $K^+\mu^-\bar{\nu}_\mu$ decay.

11th June

1. W.O. Lock (CERN)
   Survey of work completed recently or planned to be carried out at
   the CERN Proton Synchrotron.

2. F.G. Lepakhin (Leningrad)
   Some aspects of automation for nuclear emulsion work.
3. O.V. Lozhkin, N.A. Perfilov (Leningrad)
   The application of the emulsion method for the study of nuclear
   reactions involving high-energy particles.

4. S.A. Azimov, E.V. Beter, U.G. Gulyamov, G.M. Chernov, B.M. Chudanov
   (Tashkent)
   Emulsion work carried out at the Institute of Nuclear Physics of
   the Uzbek Academy of Sciences, in Tashkent.

12th June

Survey of emulsion work carried out at the Institute of Nuclear
Physics of the Kazakh Academy of Sciences, in Alma-Ata.

III. FURTHER INFORMATION

Further details about the work presented may be obtained from
the rapporteurs or from the present author. With reference to the last
two papers listed above it can be mentioned that the main fields of
study in Alma-Ata are:

i) Pion diffraction dissociation and pion - "nucleon" collisions at
   7 and 17 GeV;

ii) Proton "nucleon" collisions and proton-nucleus interactions at
    9 and 20 GeV;

iii) 3 GeV/c $\bar{p}$-p interactions;

and in Tashkent:

i) 17 GeV pion - "nucleon" collisions (See JETP 27, 24, 1964 and
    Nuclear Physics early 1965);

ii) 24 GeV proton - "nucleon" and proton-nucleus collisions.