

EUROPEAN ORGANISATION FOR NUCLEAR RESEARCH

CERN/ISRC/74-30

CERN LIBRARIES, GENEVA

17 June 1974



CM-P00063207

The accompanying memorandum was circulated to some but not all members of the ISRC. We believe it may clarify some problems in approving experiments in I8.

Since the memorandum was written, the personnel situation of our group has been specified. As of September 1974, the Stony Brook group members present in CERN will be

G. Abshire

J. Crouch

G. Finocchiaro

H. Jöstlein

R. Kephart

D. Owen

One technician from Stony Brook will also be in CERN.

STATE UNIVERSITY OF NEW YORK

AT STONY BROOK

COLLEGE OF ARTS AND SCIENCES
DEPARTMENT OF PHYSICS

May 17th, 1974.

MEMORANDUM

TO: ISRC

FROM: Stony Brook Group

SUBJECT: Proposed Study of Diffractive Events in I8

Paul Gauvin
G. Finocchiaro
M. Jostes R. Thoen

We have learned of some possible reservations on the part of the ISRC regarding approval of the proposed study of the diffractive events (ISRC/74-15, ISRC/74-9). We wish to set before the members of the committee, the position of the Stony Brook Group on this proposal.

We have strongly supported this proposal as physics in which we have great interest and which we find makes a very logical extension of previous work in I8. In this we are in full agreement with our Pisa and CERN colleagues. What may distinguish our group from our collaborators is in the degree of commitment which we could bring to this experiment:

(1) Within the coming weeks the strength of the Stony Brook team will be doubled. The primary effort of Stony Brook physicists in the past months has been the study of the associated multiplicity in events containing a high p_T photon. Data taking and preliminary analysis of this data will be completed in the summer of 1974, after which the analysis effort will be carried by one Ph.D. thesis student and another physicist in Stony Brook. Thus we foresee that a strong team will be available for active pursuit of the diffraction experiment.

(2) The Stony Brook team is not a part of the proposal to study massive $\mu^+\mu^-$ pairs and associated hadrons. In view of the possible approval of the diffractive study, we feel that our best interests are served by concentrating our efforts on this latter experiment. After the completion of the data taking this summer, this would be our primary interest.

(3) Our group has developed experience in constructing the drift chambers of the type required for the proton spectrometer. This includes a prototype chamber constructed in CERN and training of technical personnel in Stony Brook in chamber building. We would envision sending technical support from Stony Brook to assist in the construction phase immediately after ISRC approval.

We feel confident therefore that together with those who join the I-8 experiment specifically for the study of diffractive events, we have at present the requisite manpower and technical support to mount the experiment in the time schedule suggested by the ISRC. We strongly urge that every possible consideration be given for approval of this proposal.