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EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH

DRAFT MINUTES OF THE THIRTY-FOURTH MEETING

OF THE INTERSECTING STORAGE RINGS COMMITTEE

HELD ON 24 JANUARY, 1973

OPEN SESSION

Brief presentations were given on the following proposals:

1. by L. Di Lella on an Addendum to Proposal for Measurement of High Transverse Momentum Charged Particles (Saclay Group and CERN-Columbia-Rockefeller Collaboration);
2. by P. Darriulat on a Proposal to Study Large Transverse Momentum Events in the Streamer Chamber at the ISR (Aachen-CERN-München Collaboration);
3. by C. Rubbia on a Proposal for a Large  $4\pi$  Calorimeter to Investigate Multibody Events at the ISR (Aachen-CERN-Harvard-Genova Collaboration);
4. by W. J. Willis (Yale-Brookhaven) on a Proposal for an Impactometer for the ISR.

CLOSED SESSION

Present: B. P. Gregory (Chairman), M. Banner, G. Bellettini, M. H. Blewett, F. Bonaudi, A. B. Clegg, G. von Dardel, L. Di Lella, G. Giacomelli, K. Hübner, M. Jacob, W. Jentschke, K. Johnsen, L. Lefrançois, E. Lohrmann, D. Morrison, F. Muller, E. Picasso, N. Schmitz, H. Schopper, A. Wetherell

Since the last meeting, the ISRC has received the following documents:

- Installation of Equipment to Calibrate the Magnet in R 204 with Cosmic Rays, by P. H. Sharp and S. J. Sharrock (British Universities Collaboration) CERN/ISRC/69-3 Add. 2.
- Memorandum on Request for Permission to add  $\gamma$  Cerenkov Counters, from the Pisa-Stony Brook Collaboration, CERN/ISRC/69-12 Add. 3.
- Addendum to the Proposal to Study Large Transverse Momentum Events Using the Split Field Magnet Detector and the Streamer Chambers, by the Aachen-CERN-Munich Collaboration, CERN/ISRC/72-30 Add. 1.

- An Impactometer for the ISR, by W. J. Willis (Yale-Brookhaven), CERN/ISRC/73-1.
- Documents Received by the ISRC During 1972, CERN/ISRC/73-3.
- 1. The Director-General of CERN Laboratory I welcomed the new members of the ISRC: Dr. M. Banner, Professor G. Bellettini, Dr. M. Jacob, Dr. F. Muller, Dr. N. Schmitz, and Dr. A. Wetherell. He also thanked the outgoing members for all the work they had done for the Committee.
- 2. The Draft Minutes of the Thirty-third Meeting of the ISRC were approved.
- 3. Status Report and Scheduling

- (a) The ISR Co-ordinator, L. Di Lella, reported on the status and progress of the experimental programme since the last ISRC meeting. By the end of 1972, experiments R 103 and R 601 were completed; test experiments R 104T and R 404T were also completed. During the present shutdown, experiments R 105, R 701 and R 802 are being installed; equipment for experiment R 603 is also being installed but will be used first by experiment R 602 to complete some of its measurements. In addition, preparations for the experimental programme of the Split-Field Magnet facility are in progress.

During the last period of operation of the ISR in 1972, some of the problems concerning luminosity measurements and calibrations were cleared up.

Copies of a preprint of results to be published from experiment R 202, "Multiplicities of Charged Particles up to ISR Energies" by M. Antinucci, et al., were distributed to the Committee.

- (b) On scheduling, Di Lella pointed out some of the implications for ISR operation arising from the alternate PS operation of 4 weeks to the East Hall (when the ISR will operate for 3 weeks) and 4 weeks to the West Hall (when the ISR will operate for 2 weeks). He also presented some details on ISR operation for the first running period after the end of the shutdown.

There appear to be some conflicting requirements in operating conditions for the various experiments now taking data at the ISR. However, the ISRC reaffirmed its previous decision that experimental groups which require special scheduling or operating conditions (energy, luminosity, background, etc.) should present their requests to the ISR Co-ordinator who will bring to the Committee only problems of this nature which cannot be resolved.

4. Requests for Additional Equipment for Present Experiments

(a) Experiment R 204

The Committee approved the request for "Installation of Equipment to Calibrate the Magnet in R 204 with Cosmic Rays", from the British Universities collaboration (CERN/ISRC/69-3 Add. 2) with the understanding that this does not present a conflict with experiment R 203.

(b) Experiment R 801

On the "Request for Permission to Add  $\gamma$  Cerenkov Counters", from the Pisa-Stony Brook collaboration (CERN/ISRC/69-12 Add. 3), the Committee felt that this appeared to be an enlargement of the scope of experiment R 801 and, therefore, requested the group to present the details of this request at the next Open Session of the ISRC.

5. Discussion of Proposals Presented at the Open Session

(a) Addition to Experiment R 105

The Committee recommends the approval of the addition to experiment R 105 presented in the "Addendum to Proposal for Measurement of High Transverse Momentum Charged Particles", by the Saclay Group and the CERN-Columbia-Rockefeller collaboration (CERN/ISRC/72-13 Add. 2).

(b) Addition to Experiment R 701

On the additional triggering devices to be added to experiment R 701, presented in the "Addendum to the Proposal to Study Large Transverse Momentum Events Using the Split-Field Magnet Detectors and the Streamer Chambers", by the Aachen-CERN-Munich collaboration (CERN/ISRC/72-30 Add. 1), the Committee recommends approval to add the already-existing lead-glass counters for triggering on large transverse momentum  $\pi^0$ 's. However, it does not at this time recommend the addition of other devices, such as calorimeters.

The ISRC would also like to remind the group that experiment R 701 is expected to be completed by the end of 1973.

(c) Total Absorption Detectors

The Committee gave some preliminary consideration to the proposals for total-absorption detectors presented at the Open Session, namely,

- (i) the hadron calorimeters presented in the "Addendum to the Proposal to Study Large Transverse Momentum Events Using the Split-Field Magnet Detector and the Streamer Chambers", by the Aachen-CERN-Munich collaboration (CERN/ISRC/72-30 Add. 1);

- (ii) the "Proposal for a Large  $4\pi$  Calorimeter to Investigate Multibody Events at the ISR", by the Aachen-CERN-Harvard-Genova collaboration (CERN/ISRC/72-32); and
- (iii) the proposal for "An Impactometer for the ISR", by W. J. Willis, Yale-Brookhaven, (CERN/ISRC/73-1).

Copies of a paper, "Notes on Calorimeters for High- $P_T$  Events at ISR", by W. Selove, University of Pennsylvania (NP Internal Report 72-25), were distributed to the Committee.

The ISRC is pleased with the wide-spread interest in such total-absorption devices but it was felt that, in view of the extensive nature of the subject, the Committee should give further study to the papers and the presentations made at this meeting.

#### 6. Next Meetings

The next meeting of the ISRC will be held on Wednesday, 21 February, 1973, with an Open Session at 9.30 a.m. in the CERN Council Chamber and a Closed Session at 2.30 p.m. in the ISR Conference Room.

Tentative dates for the following meetings are:

14 March, 1973

11 April, 1973

M. H. Blewett