



The University of Birmingham

DEPARTMENT OF PHYSICS

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PH I/COM-73/D

2nd May 1973

Dr. I. Mannelli,
NP Division,
CERN,
Geneva 23,
Switzerland.

Dear Italo,

I suggest the following topics concerning the Omega project be discussed at the EEC meeting on May 8th 1973.

1) Report on April Run

The first eight days of this run were lost. Most of the remaining time was taken-up with tests as expected. I will make a few remarks about the performance of the common equipment.

2) Time Allocation to the Four Installed Experiments

S112	B'ham-RHEL-Tel Aviv-Westfield;	Slow neutron trigger
S113	Bari-Bon-CERN-DNPL-Liverpool-Milan;	Slow proton trigger
S114	CERN-ETH-Freiburg-Karlsruhe-Saclay;	Fast Lambda trigger
S115	Glasgow-Saclay;	Fast antibaryon trigger

I will present short, up-to-date (7-5-73) verbal reports on these experiments. I believe enough is known about them (i.e. they seem to work) from the first run for time allocations to be made to all of them. This would help in detailed scheduling for 1973. It is fairly clear that any change of emphasis will be small for these experiments but this can be discussed. Equal time allocations of 15 days each seems sensible and consistent with the amount requested.

3) Status of the Two Further Approved Experiments

S116	CERN-ETH	K* ⁰ Trigger
S117	CERN-CdF-EP-Orsay	Fast proton trigger

Brief statements will be made about the status of these two experiments and their inclusion in the programme.

4) Use of Parastic Time During Gargamelle Periods

This time is already in heavy demand by users and should greatly help the efficiency of using the main West Hall periods. Unfortunately, no Gargamelle time precedes the 10-day June run but one experiment (S-114) should be able to use most of the available time for data taking. However, the first couple of days will have to be used for spark chamber setting-up (Geometry II has been modified). Probably I should state our desire to use this time.

5) Letters of Intent and Further Proposals Requiring Discussion

Those relevant for discussion at this meeting are:-

- a) PH 1/COM 73/8 (Proposal - addendum to 70/64), Bari-Bonn-CERN-DNPL-Glasgow-Liverpool-Milan - Study of strange bosons (slow \wedge trigger)
This group has requested a 2-day test in 1973 plus 15 days in 1974. An answer is needed for planning purposes.
- b) PH 1/COM 73/13 (Proposal), Sonderegger, Π - Π scattering lengths.
This group requests a total time of 5 days preferably in 1973 with a test as soon as possible.
- c) PH 1/COM 73/11 (Letter of Intent), Glasgow, K^+p interaction trigger.

This has been tested briefly with satisfactory results using geometry I. The group asks for 20 days total and would like ~ 4 days preliminary data taking in 1973. Note also the memorandum from members of Birmingham University who wish to join this proposal.

6) Other Proposals and Ideas, including Polarized Target

None of these seems to require urgent discussion at this meeting since they depend on future developments. I suggest we defer detailed discussion to a later meeting. Relevant papers are:-

PH 1/COM 73-12 (Polarized Target Working Group)

This summarizes polarized target proposals.

PH 1/COM 70-65 (Double charge exchange using fast proton trigger - Sonderegger).

Various other ideas are not officially documented but could be mentioned as background information when discussing item 4.

I shall be present at CERN at 9.00 on Monday, 7th May, if you wish to discuss or add to this plan. I have sent a copy to Maria Fidecaro. I enclose also a list of headings which could be circulated to EEC members if you feel it is appropriate - I think it would be helpful.

Yours sincerely,



J. D. Dowell

Electronics Experiments Committee

May 8th 1973

Omega Experiments

- 1) Report on April Run.
- 2) Time allocations to the four installed experiments.
 - S112 B'ham-RHEL-Tel Aviv-Westfield. Slow neutron trigger
 - S113 Bari-Bonn-CERN-DNPL-Liverpool-Milan. Slow proton trigger
 - S114 CERN-ETH-Freiburg-Karlsruhe-Saclay. Fast Lambda trigger
 - S115 Glasgow-Saclay. Fast Antibaryon trigger
- 3) Status of the two further approved experiments.
 - S116 CERN-ETH K^*0 Trigger
 - S117 CERN-CdF-EP-Orsay Fast proton trigger
- 4) Use of parasitic time during Gargamelle periods.
- 5) Letters of intent and further proposals requiring discussion.
 - a) PH 1/COM 73/8 (Proposal - addendum to 70/64), Bari-Bonn-CERN-DNPL-Glasgow-Liverpool-Milan, Study of strange bosons (Slow Λ Trigger)
 - b) PH 1/COM 73/13 (Proposal), Sonderegger, π - π scattering lengths.
 - c) PH 1/COM 73/11 (Letter of Intent), Glasgow, K^+p interaction trigger.

J. D. Dowell

Memorandum

To: Coordinator of OMEGA and Chairman of the E. E. C.

From: M. Jobes, I. Kenyon, J. Kinson and P. Watkins
(Birmingham University).

Subject: Expression of intent to join the experiment to study K^+p interactions proposed by Glasgow University for OMEGA (described in EEC Letter of Intent PH I/COM - 73/11 2nd March 1973.)

After extensive discussion with Prof. Hughes and Dr. Turnbull of Glasgow University of their results from a sample of 20000 K^+p interaction triggers taken in OMEGA we are fully convinced of the value of the K^+p interaction trigger experiment which they are proposing. In the recent past members of the Glasgow and Birmingham film analysis groups have had a very fruitful collaboration studying K^+p interactions using the 2m Bubble Chamber. Both groups feel that it would be useful to combine efforts to carry out the proposed experiment on OMEGA. We would, therefore, like you to inform the EEC that we wish to add our names and that of our institution to the letter of intent already sent to the EEC (PH I/COM - 73/11 2nd March 1973) and request that at the next meeting this letter of intent be considered by them.

We would also request that a minimum of 4 days be allotted a first run in 1973. This size of experiment would already improve on current statistics by a factor of ~ 20 . We believe that since in certain respects OMEGA is a replacement of the Bubble Chamber then this ratio of yields between the techniques is a valid criterion for assessing the virtue of many OMEGA experiments. From our experience in working on OMEGA data at Birmingham (we have Romeo working via our link to the RHEL 360/195 and are beginning to put failed events through our fix-up station) we would hope that this data could be processed within a relatively short time scale by ourselves and Glasgow.