Short Minutes of the BV 31
Meetings of June 26/27, 2000

1 Meetings of the Committee

closed meetings: Monday, June 26, from 9:00 - 12:30
Tuesday, June 27, from 8:55 - 12:00

present:
committee members:
D. Bryman
C. Hoffmann
M. Pendlebury
J.P. Perroud
P. Truöl (chair)
G. Wagner
D. Wyler (partly, on Monday)

ex officio members and consultants:
D. Schinzel (consultant $\mu e\gamma$: partly, on Tuesday)
R. Eichler (deputy director: partly, on Tuesday)
C. Petitjean (coordinator)
L. M. Simons (observer from "Forschungskommission")

excused:
H. Keller
J.V. Kratz
R. Rosenfelder
L. Tauscher

2 New proposals

R-00-05.1 A new precision measurement of the neutron electric dipole moment (EDM) (A. Serebrov et al.)

- The committee considers the physics of the proposal to be of high priority and likes to see the experiment done. It was noted, however, that the design of the experiment is still evolving in connection with the design of the UCN source as can be judged from comparing the presentation in the open session with the status at the time of the last meeting and with what is written in the proposal. In view of this fact the latter document is rather considered a presentation of an idea how the experiment could be done than a proposal, which itself is believed to be still on the way to a final design. More specifically the discussion of systematic errors is not appropiate and should be done in a quantitative way considering e.g. the different points listed in the proposal on p. 11-12 and some others raised by committee members to be communicated separately. Also the

cost estimates deserve a reconsideration and most of the design figures stem from old reports. It is further foreseen to proceed similarly to the $\mu e\gamma$ experiment by setting up an expert team formulating milestones with the goal to monitor the progress of the design.

R-00-01.2 Measurement of π^-p charge exchange total cross sections at low energies (E. Friedman et al.)

- The decision on this experiment was defered at the last meeting. A supplementary report was received and presented, which discusses the systematic uncertainties in more detail. The committee now recommends acceptance of the experiment with low priority in the sense that scheduling of this experiment should not cause problems at the overloaded πE3 channel.

3 Progress reports

R-96-04 Search for time reversal violation in decay of free, polarized neutrons (J. Sromicki et al.)

- In view of the fact that no written document was received only a short discussion took place. The committee acknowledges the progress made in setting up the beam line and a prototype detector. In view of the fact, however, that a technical proposal was promised about three years ago the committee insists in the submission of such a document for the next meeting.

R-97-02 Precision measurement of the pion mass and outlook to the π^- hydrogen experiment (D. Gotta et al.)

- Also here no written document was received. In the discussion the committee concluded that the experiment is well at hand and acknowledged the first step of the width measurement next year as an important point. It hopes that any scheduling problems between the groups sharing the same apparatus can be solved in internal discussions without interference of the committee.

R-94-10 Measurement of the transverse polarization of positrons from the decay of polarized muons (W. Fetscher et al.)

- After a slow start-up of the experiment the committee is really impressed now by the progress made by the group in recent beam periods. It expects the group to take the final data during the beam period this year.

R-97-05 Precision measurement of singlet μp capture in a hydrogen TCP (P. Kammel et al.)

- The committee reiterates its positive attitude towards the intention of the experiment and appreciates the progress made. From the presentation it could be judged that the group is able to operate the detector and that even the transfer to deuterium could be disentangled via its diffusion properties. The proposing institutions are reminded, however, that the experiment has not been accepted for scheduling. A technical proposal is expected by the time of the next BV-meeting. In view of the fact that there are still two detector philosophies around a final design to judge upon is strongly desired.

R-97-06 A precision measurement of the Michel parameter ξ'' in polarized muon decay (R. Prieels et al.)

- The committee congratulates the group for the progress shown and expresses the hope that with the present apparatus the experiment will be able to take data in the period attributed this year.

R-99-05 Search for $\mu^+ \to e^+\gamma$ down to branching ratio of 10^{-14} (S. Mihara et al.)

- A progress report including a time schedule was received and is acknowledged. A few remaining questions have been clarified in a discussion with the referees.

4 General issues

Some members of the committee have already served for many years. One of these, J.P. Perroud, who acted both as a representative of the *Suisse Romande* as well as a pion physics and high energy physics expert, is retiring with this meeting. The committee thanks Jean-Pierre for his efforts and hopes an equally well qualified and diligent reviewer can be found to replace him. Similarly P. Truöl has expressed his hope, that a replacement can be found for him, which would allow his retirement after the next meeting. The addition of a second member (or consultant) to the committee for the monitoring of the EDM experiment is recommended, e.g. from the community measuring EDM of atoms.

5 Next meeting

The next meeting BV 32 is planned for Monday/Tuesday March 5/6, 2001. The deadline for BV 32 concerning beam requests, new proposals and addenda is January 26, 2001.

July 1, 2000 P. Truöl, L.M. Simons