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To : PS Co-ordinator
From : Muon Storage Ring Group
Re : Request for PS time

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Our recent tests have established that a muon (g-2) measurement at the level better than $1/2000$ (10 x more accurate than 1962) is clearly feasible. However, before undertaking a definitive run to this level we have to make some careful preparations. These include

- i) More detailed measurements of magnetic field.
- ii) Further tests on the time recording electronics.
- iii) Some improvement to the energy resolution of the counters to bring them all up to the performance realized in our July run.
- iv) Modifications for avoiding small perturbations of counter threshold at early times after injection. Light flashers will be used to establish the absence of these effects.

Accordingly, we can use PS time in Week 39 on September 20 (1 week) for further tests using the storage ring.

But we cannot be ready for a full scale run on September 29.

Instead, we request

September 29 - Weeks 40, 41, 42 - 3 weeks generator time for magnet measurements.

In period 44 and following - 2 periods of 2 weeks for data collection, 5 bunch ejection, preferably on a 1.6 GeV cycle.

Kicker magnet situation

To allow simultaneous operation of the 2 m bubble chamber and the h_z beam, it is necessary to eject twice from the PS, once at 10.5 GeV and later at higher energy.

This could be accomplished with 2 independent kickers, or by applying 2 pulses to the same kicker using duplicate supply circuits only, with appropriate electrical or mechanical switching.

It appears to us urgent to install the apparatus for kicking twice. This could probably be achieved rapidly if the necessary technical assistance and resources can be allocated to the task, and we urge that a high priority be given to this problem.

Copies: Members of the E.E.C.
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