



# FNAL Beam Study Activities for mu2e

Steve Geer

11:25 – 12:10	The FNAL proton complex and its evolution for NuMI and mu2e	<b>Dave McGinnis</b>
12:15 – 12:30	Experiment Location: Options	<b>Dixon Bogert</b>
13:30 – 14:00	Rebunching	<b>Dave Neuffer</b>
14:00 – 14:30	Slow Extraction and Radiation Issues	<b>Eric Prebys</b>
15:00 – 15:15	Extinction Factor at FNAL: Ideas & Discussion	<b>Chuck Ankenbrandt &amp; Milorad Popovic</b>

What level of activity is the present thinking based on ?

# Brief Post-MECO History

Fall 2005: Ex-MECO folks were wondering whether there was a Fermilab option, and a few of us at Fermilab were beginning to discuss whether we could host a mu2e experiment at Fermilab.

January 2006: Peter Yamin & Jim Miller organized a meeting at BNL between Fermilab people & ex-MECO people interested in the possibility of a  $\mu \rightarrow e$  conversion experiment at FNAL.

We agreed to explore possible concepts for the required proton beam at Fermilab, & if things look promising, to arrange a follow-up meeting at Fermilab

We now have a concept that looks promising → follow-up meeting meeting to further explore possibilities → meeting taking place now.



# Process since January

Over the last few months the Fermilab “group” has met once every 2-3 weeks with lots of discussion enlightened by a modest amount of work. Typically 6-10 people have attended these meetings, with telephone links for those not at FNAL to listen in & participate.

Along the way we have been encouraged at FNAL (by Directorate & PAC) to explore the possibilities.

We think we have arrived at an attractive concept, but its at an early stage (no engineering and many details needing attention).



# Ad Hoc Steering Group

R. Djilkibaev (NYU/Moscow)  
C. Dukes (Viginia)  
S. Geer (FNAL)  
Y. Kolomensky (UC Berkeley)  
K. Kumar (Amherst)  
Y. Kuno (Osaka)  
A. Mincer (NYU)  
J. Miller (BU)  
W. Molzon (UCI)  
E. Prebys (FNAL)  
P. Souder (Syracuse)  
P. Yamin (BNL)

To help information flow & to set up the agenda for this meeting we put together an ad hoc mu2e “steering group”



# Interest at Fermilab

At this early stage, there seems to be a healthy level of interest amongst Fermilab scientists in a possible  $\mu \rightarrow e$  conversion experiment.

Fermilab Scientist who have expressed an interest:

C. Ankenbrandt	D. Finley	D. Neuffer
D. Bogert	S. Geer	M. Popovic
S. Brice	E. Gottschalk	E. Prebys
D. Christian	M. Martens	R. Ray
F. DeJongh	D. McGinnis	H. White

15 Scientists

50% from Accelerator Division, 50% from Particle Physics Division



# Finally ...

We have interest amongst scientists, a concept for the primary proton beam, and encouragement to explore possibilities from the Directorate.

We don't have an engineered design for the beam, or an agreed on plan to go forward.

This meeting is important to assess where we are and what we want to do next.

