

Steven Ritz <sritz@ucsc.edu>  
To: Mark A Palmer <mapalmer@fnal.gov>  
Cc: Andy Lankford <andrew.lankford@uci.edu>  
Muon Collider @ P5

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Dear Mark:

As you know, the third face-to-face P5 meeting will be at Brookhaven on 15-18 December. The list of topics and the plans for the first three P5 meetings can be found on the P5 website (<http://interactions.org/p5>). Muon Collider will be discussed at the Brookhaven meeting, along with other HE vision machines (FCC, CLIC, neutrino factory), in the afternoon of 16 December.

As we have all the information from Snowmass (also discussed at the first meeting), and given our timeline, the presentations to P5 will be brief and focussed. We also want to allow ample time for discussion. I therefore request a 10-minute talk (there will be additional time for Q&A and discussion, and the panel may generate additional questions, which would be discussed in a follow-up executive session) on the Muon Collider covering:

- 1) a very brief summary of the physics case coupled with the explicit scope of the experiment(s), along with a notional timeline for construction start, data taking, and specific anticipated results. What makes this project unique, and how does fit in the overall picture of this area?
- 2) scope of international participation required for both the machine and the detector(s) and the status of these arrangements. How do you anticipate this will develop over time?
- 3) at a top level, your current estimate of U.S. contributions and why they are necessary, as well as how the effort would benefit U.S. facilities and development of key U.S. capabilities. What R&D is still required, and what is the scope? If this is a multi-agency project, what are the envisioned roles and division of scope?
- 4) estimate of the number of physicists (in FTEs) needed by project phase, including operations and data analysis.
- 5) anything you wish to reinforce from, or add to, Snowmass findings about this project, and anything else you would like to communicate to P5.

I think R&D (item 3) is particularly important and should be emphasized.

Please confirm your availability and let me know if there are any aspects you'd like to discuss.

Thanks for your help!

Best regards,  
Steve