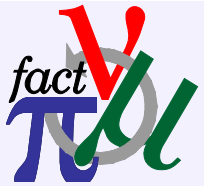


*Muon Collaboration*

# Muon Collaboration Meeting



# Meeting Notes - 1

## 1. MTA

- We have a coordinator for our future MTA activities: Barry Norris
- RF test preparation proceeding. Back in business in couple of months
- Cryo piping installation soon
- Plans for bringing beam to area developing – being done on a shoestring

## 2. MUCOOL RF

- Atom Probe Tomography (Jim + NW Group)
- 201 MHz cavity now looks like a real cavity
- Multi-beam Klystron development (CCR Inc.)

## 3. MUCOOL Absorbers

- KEK absorber filled – useful experience and first measurements
- Plans for upgraded KEK absorber test later this year
- Progress towards forced flow absorber testing – eventually test absorber in magnet next to operating cavity

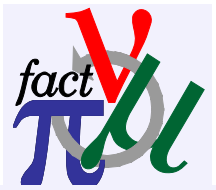
## 4. MICE

- Great progress – data taking starts April 1<sup>st</sup> 2007
- Tight relationship between MUCOOL & MICE

## 5. Muons Inc.

- HP HG GH2 RF; 6D HCC; H2 Cryostat, MANX, PIC, HCC magnets REMEX G4BL, GH2 Phase Rot. ... (More ideas than vowels)

# Meeting Notes - 3



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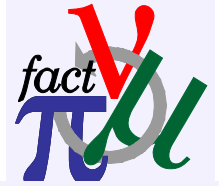
## 6. Neutrino Factory Simulations

- Study 2a
- Developing framework for optimizing phase rotator; integration of cooling & bunching;
- Acceleration scheme; pre-accelerator; 5 GeV dogbone RLA design; cost optimization, FFAG simulations; NC low energy FFAG; non-scaling FFAG model

## 7. Muon Collider Simulations

- Phase rotation ideas: early PR for polarization; shorter bunch train;
- Anticyclotrons (stopped muon source ?)
- RFOFO and Small dipole rings
- Gas filled dipole cooling rings; more realistic fields, better design
- Helical cooling channel; icool cf G4BL; momentum optimization
- Muon Collider lattice optimization framework

# Meeting Notes - 4

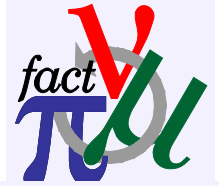


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## 8. Targetry

- Material irradiation studies: VASCOMAX, Gum metal, AlBeMet, ... early results. Plans for future.
- Target experiment at CERN becoming real → nTOF11. Beamtime Dec 06 or later. Graduate student opportunity.
- Magnet fabrication progressing; cryo design agreed on; Hg jet syringe & optical diagnostics designs progressing.
- Basic jet-nozzle physics needs some further investigation
- Continued development of fluid dynamics calculations
- Lots of targetry synergies with other programs

# Meeting Notes - 5



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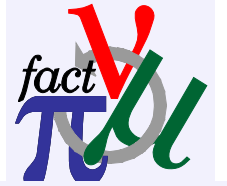
## 9. Future Plans

- Good session yesterday → great degree of consensus & some useful discussion
- Looks as if we can accomplish our core program with a realistic funding-level → “5 year plan”
- If we have more we can do more ... so we will also construct a somewhat more optimistic (than flat-flat funding) version of the plan

## 10. SCRF

- Field dependence of Q
- Q-slope problem → sputtering etc techniques & 500 MHz tests
- Low temp (100°C) bake

# Finally



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Its been a good meeting

We have lots of ammunition for our next MUTAC  
Review