NCC and Muon Trigger:

Status and Plans

Collaboration

Funding

Plans for 2004

Schedule

Collaboration

BNL	Edward Kistenev, Peter Kroon, Mike Tannenbaum, Craig Woody
Colorado	Frank Ellinghaus, Ed Kinney, Jamie Nagle, Joseph Seele, Matt Wysocki
Illinois	Mickey Chiu, Matthias Grosse Perdekamp, Hiro Hiejima, Alexander Linden-Levy, Cody McCain, Jen-Chieh Peng, Joshua Rubin, Ralf Seidel
Iowa State	John Hill, John Lajoie, Gary Sleege
Kyoto	Kazuya Aoki, Ken-ichi Imai, Naohito Saito, Kohei Shoji
Moscow State*	Mikhail Merkin, Alexander Voronin
Nevis	Cheng Yi Chi
New Mexico	Doug Fields
RBRC	Gerry Bunce, Wei Xie
RIKEN	Atsushi Taketani
UC Riverside	Ken Barish, Stefan Bathe, Tim Hester, Xinhua Li, Astrid Morreale, Richard Seto, Alexander Solin
Tennessee	Ken Read, Vasily Dzhordzahdze
INFN Trieste*	Andrea Vacchi, Mirko Boboesio, Gianluigi Sampa

***New groups!**

Contacts with additional groups:

University of Prag **Vaclav Vrba**

➔ **Effort to recruit groups from ending DIS experiments at DESY and possibly at CERN**

INFN Frascati **Pasquale DeNizza, Enzo De Sanctis**

Funding

R&D funding for 2004/2005 (existing grants, startup):

UC Riverside	**-> Engineering, NCC R&D**
Illinois/NSF	**-> RLT, RPC R&D, NCC R&D?**
RBRC	**-> RLT**
Kyoto	**-> R&D on muTr front end**
	~ $450k

NSF MRI

-> Submission January 2005 through a "consortium"
Colorado, Illinois, Iowa State, New Mexico, Riverside
-> Important administrative details in optimizing chances for approval: well defined and independent physics case, lead institution, educational component

Foreign Support (engineering, capital) ?

-> INFN Trieste,
INFN Frascati (possibly joined by additional groups from HERMES)

RHIC II

-> time scale is a real problem for RHIC spin

Goals and Schedule for 2004

Muon Trigger R&D

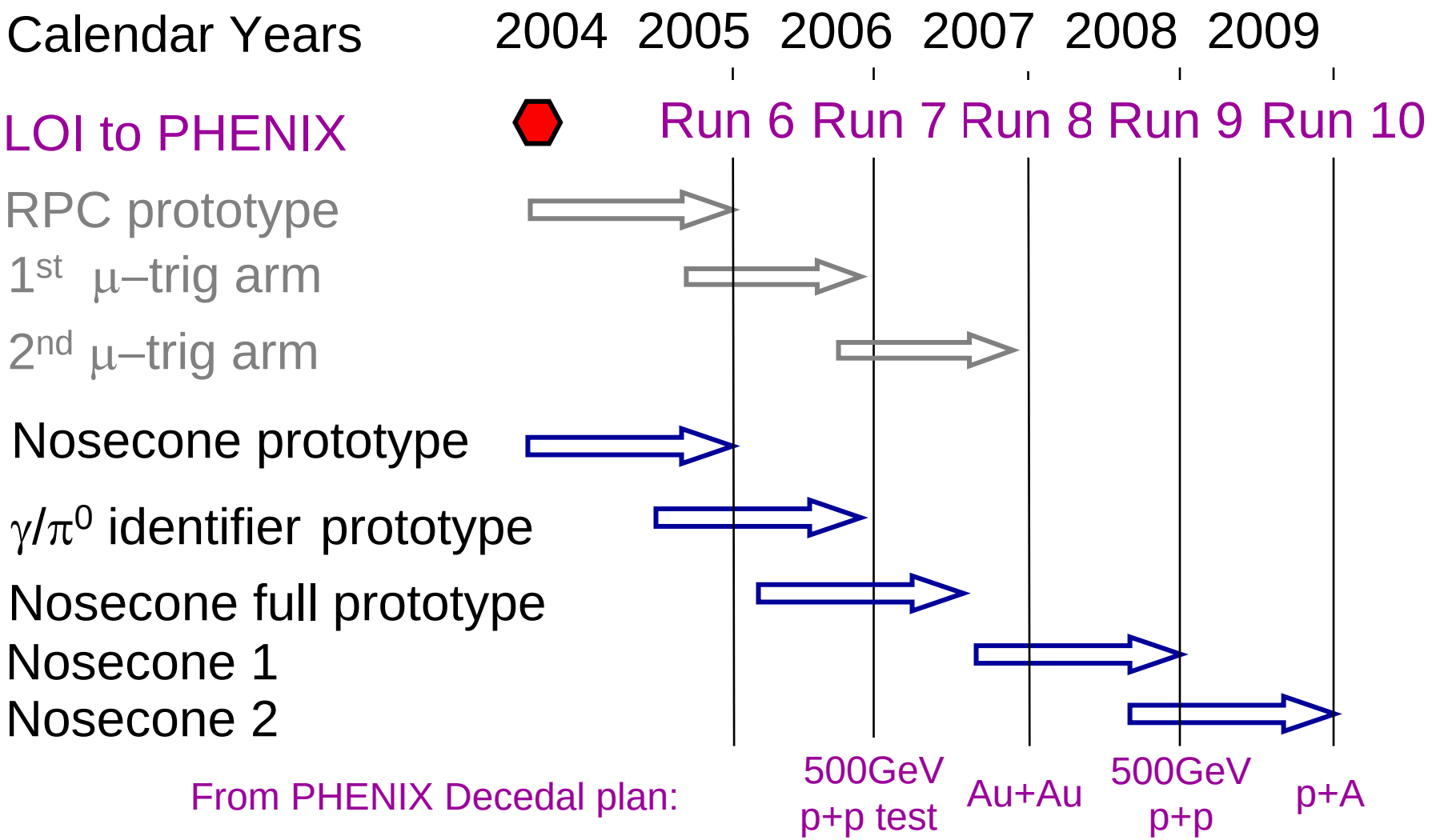
- RLT background tests → analysis ongoing
- RLT as test bench for RPCs and front end electronics
  → test stand at UIUC
- muTr FEE tests at Kyoto
  →how fast can we get a signal in to a LL1
- RPC FEEs ??

NCC

- Develop prototype sensor, cable, front end
- Test prototype as input to NSF proposal
- Full calorimeter prototype in 2005

→ LOI at April core week (editor John Hill) *ok*
→ Presentation at the NSAC meeting *ok*
→ Review through RHIC upgrades TAC
→ NSF proposal

Schedule & Cost



Initial cost estimates: muon trigger ($2M), NoseCone ($4M/arm)

Summary

Initial proposal has been formulated in a letter of intent to PHENIX

Attempt to finish nosecone prototype and RPC as input to NSF proposal by the end of 2004.

Good progress in building an active group collaborating on the NCC and Muon trigger upgrades

Funding

- o NSF MRI grant cannot cover full NCC + muon trigger
- o effort to recruit new interest