

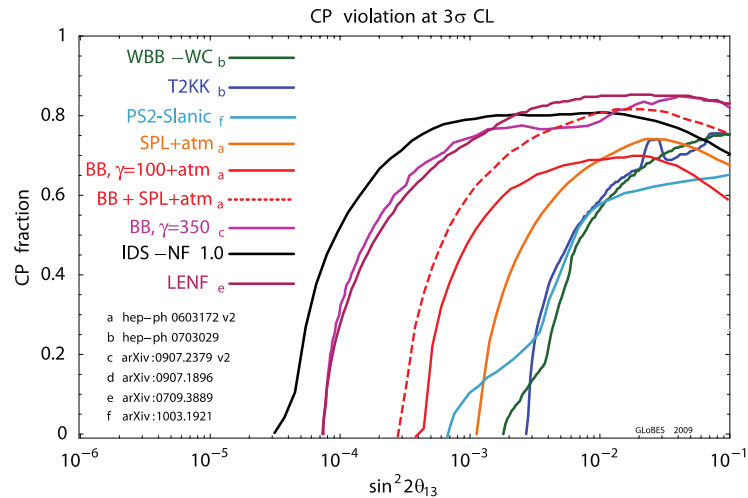
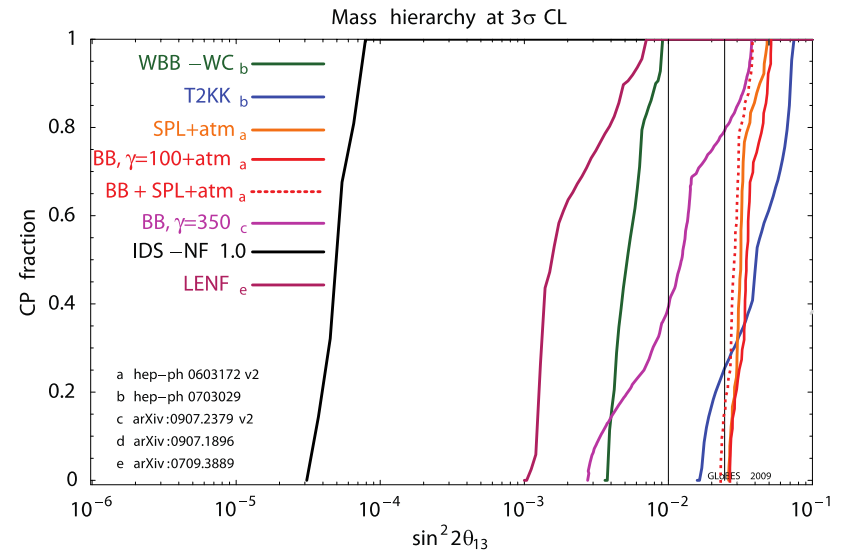
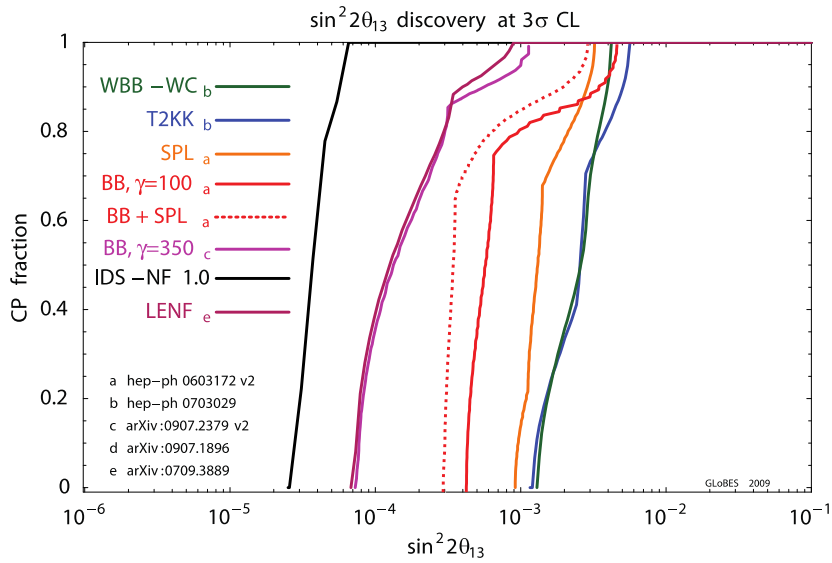
Setting the Scene: WG3

Alex Bogacz, Elena Wildner, Makoto Yoshida

Nufact 2011

- New results on Θ_{13}
- Funded: Minos, T2K & NO ν A
- Future: Upgrade of JPARC, Project X, SPL
- IDS (Neutrino Factory)
- Review of EUROnu (Neutrino Factory, Beta Beams, Super Beams)
- Small facilities
- ...

Physics Reach



Nufact10 \Rightarrow Nufact11

- 1) Is Project X a suitable proton driver for the Neutrino Factory?
More R&D needed; e.g. stripping injection
- 2) What is the path for solving the problem of operating high gradient RF in strong magnetic field?
Vigorous experimental program under way
- 3) Does energy deposition pose SC solenoid shielding problem for presently proposed proton drivers?
- 4) Do we have a working Injection/Extraction scheme for NS-FFAG Rings?
Solid concept under study, component modeling
- 5) Is chromaticity correction sufficient to reduce the TOF problem for NS-FFAG?
Proof-of-principle solution being studied


Nufact10 \Rightarrow Nufact11

- 6) Can Scaling FFAG be used in other-than-ring configurations?
Prototype lattices exist, they are very promising
- 7) Is there a synergetic path from the Neutrino Factory to MC?
A clear path is under study; efficient stages of 6D cooling are essential
- 8) Target handling for Multi MW targets ?
- 9) Proposed target systems are many, convergence?
- 10) Material property evolution with time (from radiation, strain & stress and temperature)?
- 11) Will the Beta Beam be possible in the CERN Complex? Progress on stability analysis and re-design, increased production can be efficiently used

Nufact10 \Rightarrow Nufact11

- 12) Verification of the ^{18}Ne production for beta beams?
- 13) Modeling of pion production complete?
- 14) How serious is power deposition in the structures after/around the target (horn, solenoids...)?
- 15) feasibility of mini-neutrino factory (low energy/intensity storage ring for short baseline measurement of cross-sections)



Agenda Monday, WG3

Accelerators for the PS neutrino beam	<i>STEERENBERG, Rende</i>
<i>Council Chamber, CERN</i>	14:00 - 14:15
Beta Beams in the CERN complex: PS studies	<i>BENEDETTO, Elena</i>
<i>Council Chamber, CERN</i>	14:15 - 14:30
60 GHz ECR source status	<i>LAMY, Thierry</i> 
<i>Council Chamber, CERN</i>	14:30 - 14:45
Collection of 8B and 8Li	<i>MITROFANOV, Semen</i>
<i>Council Chamber, CERN</i>	14:45 - 15:00


Agenda Tuesday, WG3

Beamline status and plans of NOvA	<i>ADAMSON, Philip</i>
<i>UniGe</i>	13:30 - 13:50
Status of the LBNE Neutrino Beamline	<i>PAPADIMITRIOU, Vaia</i>
<i>UniGe</i>	13:50 - 14:10
The CNGS Operation and perspectives	<i>GSCHWENDTNER, Edda</i>
<i>UniGe</i>	14:10 - 14:30
A new design for the CERN to Fréjus neutrino beam	<i>ZITO, Marco</i>
<i>UniGe</i>	14:30 - 14:55
WG3 neutrino flux monitoring in the neutrino factory	<i>BLONDEL, Alain</i>
<i>UniGe</i>	14:55 - 15:10

Agenda Wednesday, WG3

Target and magnetic horn for CERN -Fréjus superbeam	<i>VASSILOPOULOS, Nikolaos</i>
<i>UniGe</i>	11:00 - 11:20
Liquid targets for isotope production	<i>NOLEN, Jerry</i>
<i>UniGe</i>	11:20 - 11:40
Target options for NF	<i>DENSHAM, Chris</i>
<i>UniGe</i>	11:40 - 12:00
Simulation of Dynamic Interaction of the Neutrino Factory Mercury Jet with the Mercury Collection Pool/Beam Dump	<i>MCDONALD, Kirk</i> 
Commissioning and status of the muon test area at FNL	<i>YONEHARA, Katsuya</i>
<i>UniGe</i>	14:00 - 14:20
MICE step I: first meas. of emittance with part. Phys. det	<i>ADEY, David</i> 
<i>UniGe</i>	14:20 - 14:35
Progress in the construction of the MICE cooling channel	<i>HANSON, Gail</i>
<i>UniGe</i>	14:35 - 14:50
RF Cavity processing and testing plan	<i>ZISMAN, Michael</i>
<i>UniGe</i>	14:50 - 15:05
WG3 Performance Comparison Between FSIIA and Bucked Coils for the Neutrino Factory Cooling Lattice	<i>ALEKOU, Androula</i>
Opportunities for neutrino experiments at ISOLDE	<i>DE MELO MENDONCA, Tania Manuela</i>
<i>UniGe</i>	15:20 - 15:35

Agenda Thursday, WG3

Recent Studies on the PRISM FFAG Ring	<i>PASTERNAK, Jaroslaw</i>
<i>UniGe</i>	11:00 - 11:30
First measurements of muon production rate using a novel pion capture system at MuSIC	<i>COOK, Sam</i>
Superconducting Magnet R&D for COMET	<i>YOSHIDA, Makoto</i>
<i>UniGe</i>	12:00 - 12:30
Neutrino Factory Front End and Extensions	<i>NEUFFER, David</i>
<i>UniGe</i>	14:00 - 14:15
Linac & RLA design status and simulations	<i>BEARD, Kevin</i> 
<i>UniGe</i>	14:15 - 14:30
A new lattice for the beta-beam decay ring to enlarge the stability limit	<i>PAYET, Jacques</i>
<i>UniGe</i>	14:30 - 14:45
Recent developments on the muon Non-Scaling FFAG for the Neutrino Factory and its subsystems	<i>PASTERNAK, Jaroslaw</i>
Scaling FFAG straight line	<i>LAGRANGE, JB</i>
<i>UniGe</i>	15:00 - 15:15
High Tc superconductor magnet technology for FFAG accelerators	<i>AMEMIYA, Naoyuki</i>
<i>UniGe</i>	15:15 - 15:35