Towards the TDR

M. Tenti - Bologna

INFN
Istituto Nazionale di Fisica Nucleare

DUNE

Towards the TDR

- **Top priority** studies has been identified
- A list of agreed items has been circulated asking for **contributors**

Paolo Gauzzi	Sapienza/Roma1
Grigory Vorobyev	JINR
Artem Chukanov	JINR
Paolo Bernardini	Lecce
Antonio Surdo	Lecce
Francesca Alemanno	Lecce
Denise Casazza	Ferrara
Riccardo D'amico	Ferrara
Valerio Pia	Bologna
Giulia Lupi	Bologna
Gianfranco Ingratta	Bologna
Matteo Sorbara	Roma2

ECAL clustering	Kalman Filter	Proton/pion separation	Muon/pion separation	Electron identification	Straw -VS drift-based tracker	Event reconstruction
D. Casazza R. D'amico P. Gauzzi	V. Pia G. Lupi A. Chukanov G. Vorobyev	A. Chukanov G. Vorobyev	D. Casazza R. D'amico	D. Casazza R. D'amico P. Gauzzi	G. Ingratta M. Sorbara	P. Bernardini A. Surdo F. Alemanno

Meetings

- Starting from 21/02 we have regular weekly meetings
- A shared google docs is used to take notes [here the folder]
- Meetings are recorded [here the folder]
- A list of action items is produced and checked during the meeting
- Notes, video and action items can be found in the corresponding indico agenda

Past meetings

- First meeting dedicated to understand the plans and the needs of the contributors
- **Ferrara** (DC & RdA) is investigating an issue in the reconstructed Y direction of the clusters using muons
- **Bologna**
  - (VP & GL) reported the work on the seeding of the Kalman filter and the unexpected tail in the in the reco momentum residuals (reco - true)
  - (GI) reported on the status of the fast reco algorithm. He identified some issue to be investigating …maybe not related to the algo
- **Lecce** (FA, AS & PB) shows the results of the preliminary comparison between old results and the new one obtained with new simulation and reconstruction
- **Roma2** (MS) together with SDF is aiming to study and compare the straw- vs drift-based tracker performances

SAND integration w/ DUNE

- SAND needs to be much more integrated in the DUNE Collaboration
- We need liaison people
  - **NIUWG** : **missing**
    - Neutrino interaction uncertainties
      [DUNE-PHYSICS-NU-INTERACTIONS-SM@listserv.fnal.gov]
  - **LBL** : L. Di Noto [Genova]
    - Long baseline oscillations
      [DUNE-PHYSICS-LBL@listserv.fnal.gov]
  - **ND sim/reco** : M. Tenti [Bologna]
    - ND simulation and reco
      [DUNE-ND-RECO-SIM@listserv.fnal.gov]
  - **BSM** : D. Montanino [Lecce]
    - Beyond Standard Model
      [DUNE-PHYSICS-BSM@listserv.fnal.gov]

Thank you

DIscussion

"What if we don't change at all ...
and something magical just happens?"