Imperial College London

Round table:

Performance indicators for baseline neutrino oscillations experiments

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Motivations for precise measurements:

- Neutrino mixing parameters are *fundamental parameters* and should be know as well as possible so that theory of flavour can be defined, for example:
  - Theory led:
    - Tribimaximal ansatz:
      - Need to measure θ13 as well as possible
      - Need to determine θ12 and θ23 sufficiently well to establish tribimaximal pattern (or maximality of θ23 for example)
  - Experiment led:

Parameter choice for comparisons:

- Issue:
  - What parameters should be used to evaluate precision of various facilities and to allow comparison of their performance?
    - Parameter sets close to experimental observables preferred
  - Very brief discussion of plotting area (volume?) of error ellipse as a function of the parameters:
    - Need to consider correlations (through correlation coefficients, etc.?)

Additional comments:

- Key issues for unravelling physics of flavour:
  - Majorana nature of neutrino
  - Existence of charged lepton flavour violation
  - Existence of leptonic CP violation
  - Precision measurement of neutrino oscillation parameters
- Opportunity to do first rate rare muon programme at the Neutrino Factory should be viewed as an integral part of the