



APPEC

International Meeting for Large Neutrino Infrastructures

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Ecole d'Architecture Paris
3 Quai Panhard et Levassor
Paris, 75013



Speakers

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S.K. Agarwalla, M. Diwan,
M. Shiozawa, A. Rubbia,
T. Ekelof, K. Long,
S. Ritz, J. Lesgourgues,
A. Smirnov, A. McDonald,
P. Huber, T. Laserre,
Y. Wang, SB Kim,
N. Mondal, M. Kowalski

<http://appec.org/9-features/78-gnm.html>



A meeting involving world-wide project leaders and agency
responsibles to set-up instruments for the follow-up and
encouragement of global convergence

- Accessing the physics case
- The perimeter of the things to coordinate
- Against the usual argument of dispersion
- Status of the community and opportunities of coordination.
Convergence examples
- Roadmaps
- Two types of convergence: community , agency → synchronise
- Procedure today and tomorrow
 - Correction of the agenda → a session on what has been achieved



5 tough questions (i)

- Q1. (Theoretical relevance) What is according to you the theoretical relative urgency of the determination of the
 - neutrino mass hierarchy,
 - PMNS CP violating phase δ ,
 - θ_{23} octant
 - existence of sterile neutrinos
 - Dirac vs Majorana nature of the neutrino
- Compare, if relevant, to other attempts of measurement direct or indirect (e.g. in cosmology). Describe also synergies with other topics of science e.g. proton decay or neutrino astrophysics (supernova burst and relic, solar neutrinos,...).



5 tough questions (ii)

Q2. (Experimental Strategy) What is according to you the experimental strategy that needs to be deployed worldwide in order to answer the above questions? And in particular, how many experiments should there be worldwide, what complementarities or double check features should they exhibit? In this world-wide context describe the phases of your project, its timeline and the expected statistical significance per phase. Discuss the relevant systematics, how well you know them and in particular do you need any supporting measurements to further determine them?

Q3. (Experimental readiness) Evaluate the readiness of the technology you are planning to use. Describe the phases (or R&D) towards its final validation. What are the risks associated. Is there place for global sharing and coordination of the R&D or validation effort? Are there industrial issues e.g. in procurement?



5 tough questions (iii)

Q5. (Financial and internationalisation issues) What is the cost of the experimental configuration (beam where relevant and detector)? What is your financial plan? What is the current level of international participation and what level of participation would be necessary to move to a construction decision? What models would you propose for international participation and at which parts of the beam or detectors? What would be the parts of the configuration whose leadership you would be willing to negotiate in exchange of international participation ?