

DRAFT summary of the NUFAC16 1st Scientific Program Committee meeting, 21 January

Present: Alain Blondel, Alex Bogasz, Alan Bross, Jacques Dumarchez, Maury Goodman, Takuya Hasegawa, Debbie Harris, Patrick Huber, Takashi Kobayashi, Yoshi Kuno, Jorge Morfin, Tsuyoshi Nakaya, Vittorio Palladino (+ anyone I forgot)

Agenda of the meeting and links to presentations nufact15 and nufact 16 web pages can be found here: <https://indico.cern.ch/event/486739/>

1. Introduction (Kobayashi)

T.K. welcomed the nufact2016 SPC members. Then summarized the work in front of us.

- Presentation of workshop: well summarized on slide 5!
- The four WGs inherited from the previous workshops have conveners ready to go.
- Suggest that program follows as first approximation the scheme of nufact15
- Make sure that the program includes scientific conclusions and mission to nufact17
- Proposes a first introduction and discussion today with more specific proposals for the agenda prepared by the co-chairs ahead of the next meeting. Then discuss list of possible speakers and assignment of contacting speakers

Actions: all committee members to reflect on program and start thinking of proposals

2. Practical organization (Jacques Dumarchez)

The 'rencontres du Vietnam' offers an experienced and well-oiled organization. A web site has been created, with a first version of the presentation of the workshop. List of conveners, SPC and Local organizing committee is already uploaded. Registration is open. Lodging in nearby hotel (10min transport or 1hr walk), full board for the week is 350 USD, the flight from e.g. Geneva to Qui Nhon is >24hrs, 2 changes and typically ~1200 USD.

Action 1: members visit the workshop pages, propose updates to scientific information on workshop on web page, ask questions, etc.

Action 2: (for Jorge&Jacques) check that the hotel is on the 'approved' list.

Action 3: compile legacy of questions by nufact15 and post on nufact16 web site: Alain to ask speakers of final session.

3. Summary of nufact15 (Jorge Morfin)

Nufact15 in Rio de Janeiro attracted many applications from the Latin-American countries. (150). In order to fully benefit from rotating nufact around the world it is important that support could be provided to locals. There were also 123 paying participants (NB: how many participants in total?). Important comments:

- It is important to preserve discussion time and not to fill the agenda too much, given that many people want to present something to justify the travel expense.
- To this effect the poster session (accompanied with good wine and food) provides a good relief to the sessions and a very nice 'discussion time'.
- Noted that there was little emphasis on the neutrino factory in the nufact15 meeting – probably an aftermath of P5. Need to draw some focus on the questions of i) nustorm for DUNE/HyperK and ii) the future after DUNE/HyperK.

- Proposal of emphasis every other year on nufact/conventional beam was discussed, but it was preferred to tune the emphasis in relation to the actuality of the field – without forgetting the muon storage ring neutrino factory.

4. Proposal for WG5 (Alain Blondel)

See slides. Following the proposal of the 'theory working group' Alain and Paul had discussions with E. Fernandez, B. Gavela and others. At the end the idea evolved to the proposal of a WG5 labelled 'Neutrinos Beyond PMNS'. Following the nufact tradition and contrary to the 'pure theory idea' this working group should encourage common discussion between theorists, experimenters and accelerator scientists. The topics addressed by the WG5 covered could include:

- general discussion, motivation and, possibly, rationalization of models beyond PMNS
- experimental searches for right handed neutrinos
 - nuclear decays and galactic emissions (no emphasis)
 - short baseline oscillations (known as 'sterile neutrino searches')
 - observation of neutral decays in beam dump experiments and neutrino beams
 - observation in e-e- colliders (W-W- final state)
 - observation in Z and Higgs lepton collider factories
 - observation at hadron colliders LHC, HL-LHC... SppC and FCC-hh
 - unification of interpretation framework
- other topics beyond PMNS : NSI, tests of Lorentz invariance violation, observations in rare lepton decays (μ , τ), etc.

The proposal was well received. In the discussion the following points were made :

- it is essential to have experimental conveners involved.
- the agenda should be organized in such a way as to avoid too much overlap between the sessions.

Action: Alain to circulate proposal and ask for conveners suggestions.

Next meeting and homework

Next meeting is fixed February 12 at 14:00 UTC

(i.e. 14:00 in London, 15:00 at CERN, 8:00 at Fermilab, 23:00 at KEK)

SPC to make proposals for members of the first day round table discussion

SPC to please prepare list the questions they would like to see addressed in the meeting (and who could present them)