

Collaboration Organization -Discussion-

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ICARUS Collaboration Meeting



Outline

- Context
- SBN Program + SBND Organization
- Current ICARUS Organization
- Collaboration Roles
- Organization Discussion
- DOE Whitepaper (US Groups)
- Collaboration Meetings
- Further discussion

Collaboration Context

- ICARUS program initiated in 1997 by Carlo Rubbia and the collaboration formed but some INFN members involved for years before that (as was David Cline-UCLA)
 - ICARUS T600 first operation at Pavia in 2001 → Gran Sasso 2010
 - INFN, Poland, US (UCLA), Russia
- T600 → CERN 2014 → Fermilab 2017 as SBN Far Detector
- A huge effort by the “traditional ICARUS” group that has worked together for more than 20 years
- An immense effort from Fermilab to provide detector hall, essential infrastructure and myriad of responsibilities of a host lab (not to mention a well understood neutrino beam)
- As you heard from Carlo yesterday – warm invitation for US collaborators (especially young people)
- Recognized need for some organization changes

SBN Board

- Described by Steve Brice yesterday

“...a set of organizational structures are defined to oversee the completion of the ICARUS and SBND detectors, to develop plans and procedures for their commissioning and operation, and to coordinate efforts toward combined physics analyses in the future. ... The SBN physics program will include both a set of multi-detector joint oscillation measurements as well as measurements carried out independently by each experiment.”

- SBN Board – established Oct. 2017 to propose a structure
 - The SBN Board consists of the SBN scientific collaboration spokespersons, the Head of the Fermilab Neutrino Division, and a chair for the group appointed by the Fermilab Director.
 - Document agreed March 14, 2018
- *SBN Program Oversight Board (SBN-OB)*
 - From ICARUS: C. Rubbia, S. Centro, R. Wilson
 - Will meet tomorrow
- *SBN Institutional Board (SBN-IB)*
- *SBN Joint Working Groups*

SBN-IB

- **Purpose:** The SBN-IB will provide a forum for program-wide communication on issues relevant to the Program. Procedures and policies covering joint aspects of operation, data sharing, data analysis, publications, etc. in the form of MoUs or other agreements can be brought to this body for deliberation or developed from within the group. Agreements developed within the SBN-IB will need to return to the individual collaborations involved in the MoU for final ratification.
- **Membership:** The SBN-IB will consist of one member from each institution participating in the SBN Program. Each institution's representative is selected by that institution and communicated to the IB chairperson who will maintain the official list of membership and mailing list. The chairperson will be elected by the members of the IB from within its membership.
- No schedule yet for setting up the SBN-IB – the Oversight Board will discuss an interim IB chair to get things started

SBND

- Near detector SBND collaboration evolved from LAr1-ND 2013
 - US, UK, Brazil, CERN – 161 scientific collaborators (+ > 20 technical)
 - Spokespersons: Ornella Palamara (FNAL) + Dave Schmitz (U. Chicago)
 - Institution Board with 35 institutions

- For oscillation physics the two collaborations need close cooperation; initially operations and some physics topics are separate but profit from many synergies through Joint Working Groups

Current ICARUS

- Spokesperson – C. Rubbia
- Deputy Spokesperson – S. Centro
- ICARUS INFN Contact – A. Guglielmi
- Technical Coordinator – C. Montanari
- Software Coordinator – D. Gibin
- Scientific Secretary – D. Salmieri
- Executive Committee – 10 members
 - **Spokesperson + Deputy Spokesperson + INFN Contact**
 - **+ One representative from each INFN group:**
Catania, CERN, LNGS, Milano Bicocca, Napoli, Padova, Pavia
 - **No currently active collaborators outside of Italy except CERN**
 - **Effectively an IB also**
- Detector Subsystem leaders

- US groups joined 2015
 - ANL, BNL, CSU, Fermilab, LANL, Pitt, SLAC, UTA
 - No formal representation
 - Contributions mainly CRT and s/w to date

ICARUS@SBN Roles

- Technical Coordinator
 - -> Run Coordinator
- Shift Coordinator
- Physics Analysis Coordinator
 - Physics Working Group Conveners
- Data Processing Coordinator
- Offline Software Coordinator
 - Reconstruction Working Group Convener
 - Reconstruction Working Group Convener
- Calibration Coordinator
- Subsystem (Co-)Coordinators
 - TPC
 - PMT
 - CRT
 - DAQ
 - Trigger
 - Cryogenics
- BNB Interface
- NuMI Interface
- Editorial Board Chair
- Speakers Board Chair
- Others?

Organization Options

- Current: Spokesperson
- Option: Spokesperson/US Co-Spokesperson (CR suggestion 2016)
- Deputy Spokesperson (option: more than one)
- Option: Expand “Executive” Committee (no separate IB)
 - With current ICARUS model the addition of US groups => ~16-18 members
- Option: Core Executive Committee + a separate IB
 - Option: EC: Spokesperson (chair), Dep. Spokesperson, Technical/Run Coordinator, Analysis Coordinator, INFN-Groups Representative, DOE-Groups Representative, FNAL Representative, ...
- Option: Institutional Board
 - One representative from each institution
 - Responsibilities - policy e.g.
 - Membership
 - Shift policy
 - ...

DOE-Whitepaper?

- ***Conversation with DOE Kevin Flood (Intensity Frontier) 26 April 2018***
- It would be helpful to have an overview of current/proposed contributions to ICARUS particularly non-Fermilab groups
 - They have frequent communication with Fermilab SBN project, so know that status well but less so other labs and much less so university groups.
- Could be in the form of a “whitepaper” from the collaboration
 - A “communication with program officer” – NOT a formal proposal
 - Would need to be available to all collaborators/potential collaborators *well in advance* of Comparative Review submissions (early Sept. 2018)
- **This is not a requirement/request from DOE at this time**
 - Do we want to prepare such a document?
- SBND - from Ornella and Dave:
 - Two summers ago DOE SBN briefing with all groups at Fermilab
 - Last summer DOE briefing with Peter, Cat, Ornella and Dave
 - Primarily project/detector design/fab related
 - Have not prepared a “whitepaper” but it might be good to do

Collaboration Meetings

- How often?
- Where?
 - Budget concerns
 - Video?

Further Discussion?