2015/01/30 @HK meeting

Hyper-K International Organization

T. Nakaya for IBR

project co-leaders from international members

Proposed Structure

International Board Representative

Chair (usually to be elected if we have a collaboration and rules, probably for now to be nominated)
International Board Representatives
Ex-officio:
Chair Steering Comm: Nakaya
Project Leader: Shiozawa
Intern. Tech. Coordinator(s):

Charge: Monitors the financial aspects of the experiment and the funding requests in each Country.

Steering Committee (or Project Management)

Chair: Nakaya
Project Leader: Shiozawa
J-PARC: Aihara
KEK: Kobayashi
Kamioka: Nakahata

Physics: Yokoyama

+ 4 internationation members
(usually to be elected if we have a collaboration and rules, but for now to be nominated)

Charge: responsible for making or approving major scientific or technical decisions. It should be representative of the collaboration as a whole as much as possible, but the primary requirement it that it possesses sufficient expertize to guide the collaboration.

Convener Board

Project Leader (chair): Shiozawa
WG1: conveners
WG2: conveners
....

Charge: Provide coordination of all the hw, sw and physics activities towards the full design of the experiment.

Hyper-K International Organization in the stage of proto-collaboration

- International Board Representative (IBR)
- Conveners board
- (International) Steering Committees (iSC)

International Board Representative

- Charge
  - Make the rule of collaboration (a draft may be prepared in iSC).
  - Promote the funding requests in each country
  - Monitor the financial aspects of the experiment.
  - Confirm proposals from iSC about project steering (such as nomination of conveners)

- Membership
  - One or two members from each country. The chair will be selected among the IBR members.
  - Ex-officio: iSC members

Conveners board

- Charge
  - Provide coordination of all the hardware, software and physics activities towards the full design of the experiment.
  - Technical decisions of each R&D subjects which should be confirmed by iSC (and IBR?).

- Membership
  - Project leader (M. Shiozawa)
  - Deputy-Project leaders **(NEW: a few members)**
  - conveners of each working group. We will modify/create the new working groups.
    - WG7: Near detector
    - WG8: beam & accelerator

(International) Steering Committee

- Charge
  - responsible for making or approving major scientific or technical decisions. It should be representative of the collaboration as a whole as much as possible, but the primary requirement it that it possesses sufficient expertise to guide the collaboration.
  - Appoint members in conveners board including project leaders in consultation with IBR
  - Promote the Hyper-K project in Japan and in the world.
  - Select the Hyper-K speakers in the international conferences
  - Check the Hyper-K material (proceedings, etc..)

- Membership
  - Chair:
  - IBR chair (co-chair of the iSC)
  - ICRR representative
  - KEK representative
  - Project leaders:
  - Physics conveners:
  - International members (up to 4)
    - The members will be proposed in the current steering committee in consultation with IBR in the first round. Later, we will ask IBR how to select the members.

IBR chair

- From the IBR members
- Co-chair of International Steering Committee
- Promote/arrange the discussions on the international contributions to Hyper-K
- **To be announced at the Hyper-K symposium on Saturday.**

iSC members

- Considering the regional valance which is important to discuss the international responsibilities in Hyper-K (and international status)
  - two members from Europe
  - one member from Canada
  - one member from US
- **To be announced at the Hyper-K symposium on Saturday.**

New working group conveners

- We also discuss the new working group convenes to make the Hyper-K group more international.

- **New conveners will be also announced at the Hyper-K symposium on Saturday.**

Design Report

- We have many physics study papers. In addition to physics (update), we should include
  - Design of the Hyper-K detector, Excavation and the operation plan
  - Request to J-PARC
  - Design of Near detector
  - Realistic schedule
  - Budget with our best estimate and the strategy
    - We may have to show a few options by considering how to reduce the total budget. ~$1B will be too much for the current Japanese government.
  - International responsibilities (with agreements)
    - well define the role of Japan for the project
    - define the role of international partners

Detector design

- We must convince reviewers/managements that we are ready for budget request of real experiment
- Making a optimum design for the report is crucial
  - Optimum cavern location and shape
  - Liner material and design
  - Outer detector design (width, PMT density etc)
  - water system
  - PMT support structure
  - FV cut (can we reduce 2m Dwall cut?)
  - Photo-detector size, density, accessaries
  - DAQ electronics and computers
  - Calibration strategy
  - Near detector complex
  - Maximized physics potentials

Many places to contribute

We have only 6 month for the first draft

Notional Timeline

- •2015/1 HK meeting
- •2015/4−5 Cavity design ready

- •2015/6 Tank design ready
  Selection of photo-sensor size and number
- •2015/7 7th Hyper-K meeting?
  Fix the basic design of the detector
  First rough draft ready

- •2015/9 Second draft ready
  face-to-face meeting?

- •2015/10 submission to KEK/ICRR