Opening Remark

Masato Shiozawa

Kamioka Observatory, Institute for Cosmic Ray Research, U of Tokyo, and Kamioka Satellite, Kavli Institute for the Physics and Mathematics of the Universe (WPI), U of Tokyo

> Open Hyper-K Meeting January 29, 2015

This meeting would be a milestone

- Hyper-K proto-collaboration will be launched
- An inaugural symposium will be held for the Hyper-Kamiokande proto-collaboration in the afternoon of Jan.-31
 Signing ceremony for KEK-IPNS/UTOKYO-ICRR MoU to promote the project
- Discussions on Hyper-K **Design Report**
 - to be ready in a timescale of $\sim I$ year
 - to be reviewed under directors of KEK-IPNS/ICRR

Launch of Hyper-K proto-collaboration

• Lead the project with responsibility for group steering, budget request, task/cost sharing, making experimental design etc.

- •The collaboration will have:
 - international steering group
 - international board of representative (IBR) w/ international member chair
 - international convener board w/ project leader and deputyleader(s)
- Details by Nakaya-san's talk tomorrow morning
- project-leaders, conveners, IBR, steering members will be announced in the symposium

MEMORANDUM OF UNDERSTANDING

of the cooperation in the Hyper-Kamiokande project

January 31, 2015

THE INSTITUTE FOR COSMIC RAY RESEARCH OF THE UNIVERSITY OF TOKYO and THE INSTITUTE OF PARTICLE AND NUCLEAR STUDIES OF THE HIGH ENERGY ACCELERATOR RESEARCH ORGANIZATION have reached agreement regarding cooperation in promoting the advanced nucleon decay and neutrino experiment program, Hyper-Kamiokande, by understanding that the program would make significant progress in a wide range of fields in physics and astronomy. It is also agreed to review and develop the program in its comprehensive aspects including promoting organization and budget measures. THE INSTITUTE FOR COSMIC RAY RESEARCH OF THE UNIVERSITY OF TOKYO and THE INSTITUTE OF PARTICLE AND NUCLEAR STUDIES OF THE HIGH ENERGY ACCELERATOR RESEARCH ORGANIZATION have reached agreement regarding cooperation in promoting the advanced nucleon decay and neutrino experiment program, Hyper-Kamiokande, by understanding that the program would make significant progress in a wide range of fields in physics and astronomy. It is also agreed to review and develop the program in its comprehensive aspects including promoting organization and budget measures.

This agreement is effective for two years from January 31, 2015 and is able to be updated upon the discussion between the two organizations.

Prof. Takaaki KAJITA

Director Institute for Cosmic Ray Research,

Prof. Masanori YAMAUCHI

Director Institute of Particle and Nuclear Studies,

Symposium

"Inaugural Symposium

of the Hyper-Kamiokande Proto-collaboration"

「ハイパーカミオカンデ研究チーム発足記念シンポジウム」

- Date: January-31, 2015, 14:00~
- Place: Kashiwa-no-ha Conference Center, Room I +2
 - in the Mitsui Garden Hotel near Kashiwa-no-ha station
 - ~10min. from IPMU by public bus



2 screens can be used when the room is oriented sideways.

"Inaugural Symposium of the Hyper-Kamiokande

Proto-Collaboration"

Host		t	Hyper-Kamiokande International Proto-Collaboration		
	Co-l	Hosts	The University of Tokyo Institute for Cosmic Ray Research High Energy Accelerator Research Organization Institute of Particle and Nuclear Studies		
 The symposi Master of Ce Program 		The sympo Master of (Program	sium will be held Saturday January 31 st , 2015 at 14:00 Ceremonies : Akira Konaka (TRIUMF/RCNP)		
		Overview o	of the Hyper-Kamiokande Project Masato Shiozawa, University of Tokyo	(10 min)	
		The J-PAF	RC Neutrino Beam Facility Takashi Kobayashi, KEK	(10 min)	
		The Interr	national Proto-Collaboration Francesca Di Lodovico, Queen Mary University of London	(15 min)	
		Internatio	nal Cooperation Chris Walter, Duke University	(15 min)	
		Memorand	lum for the Promotion of the Hyper-Kamiokande Project Masanori Yamauchi, KEK Takaaki Kajita, University of Tokyo	(15 min)	
		Closing	Tsuyoshi Nakaya, Kyoto University	(10 min)	

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Remark

- All of Hyper-K members here are expected to join the symposium
 - Let's celebrate the birth of the proto-collaboration
 - and MoU of two institutes
 - We may hear words from Yamauchi-san/Kajita-san
 - New organization w/ project-leaders, conveners, IBR, steering members will be announced

- Press and science journals, Saito-san(J-PARC), Tokushuku-san (KEK), Takeuchi-san(MEXT) will also join
 - Need to show international interests on Hyper-K

Near Future Plan

- **Design Report** to be prepared in ~I year
- International review under KEK-IPNS/ICRR to develop/promote the project
- Start **budget request**
- Masterplan 2017 → Roadmap 2017
- **Start construction** in 2018 \rightarrow start operation in ~2025

It is critical time to promote the project

Contents of the report

- Detector design
- Excavation
- Budget, Strategy for budget
- International Responsibility
- Cost Sharing
- Near detector design
- Request to J-PARC

Basis for budget requests in each countries

Every collaborators should make contributions

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

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

Thank you all for your participations & Let's start the fruitful year towards our dream