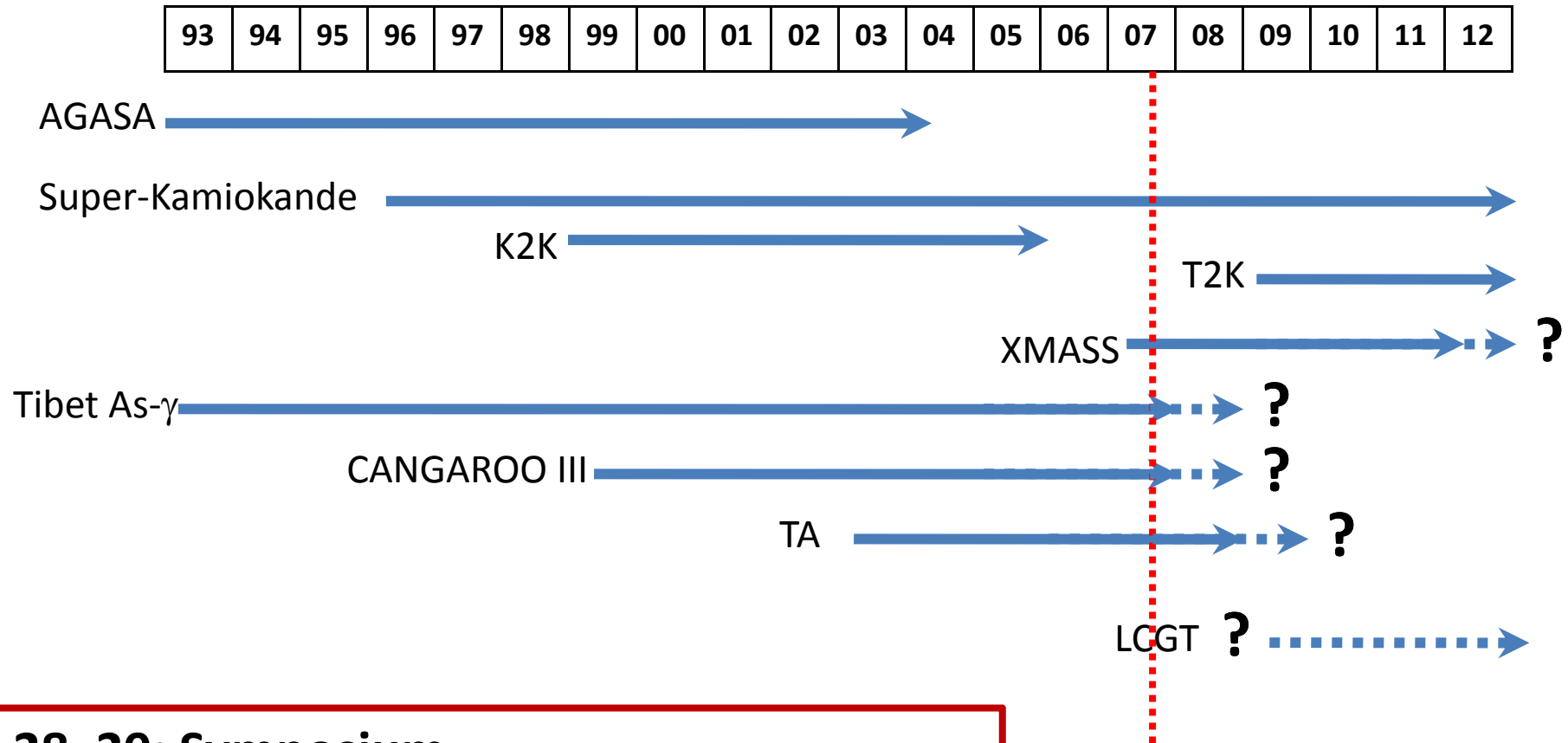


Welcome

Y. Suzuki

ICRR, Univ. of Tokyo

Current Major ICRR Projects



28, 29: Symposium

30: Presentation of the future projects

31: Committee meeting

Road Maps in US and Europe (2006~2007)

(US)

- EPP2010 (Elementary Particle Physics in the 21st century: US National Research Council)
- P5(Particle Physics Priority Planning Panel; The Particle Physics Road Map: for DOE and NSF)

(Europe)

- CERN Road map(CERN)
- ApPEC Road Map (Astroparticle Physics European Coordination)

ApPEC (Astroparticle Physics European Coordination) Road Map

ASPERA Roadmap • Phase I •

(2007)

Field/ Experiments	Cost scale per experiment (M€)	Desirable start of construction	Remarks
Dark Matter Search: Low background experiments with 1-ton mass Dark Matter	60-100 M€ 60-100	2011-2013 2011-2013	2 experiments (different nuclei, different techniques), e.g. 1 bolometric, 1 noble liquid; more than 2 worldwide.
Proton decay and low energy neutrino astronomy: Large infrastructure for p- decay and ν astronomy on the 100kt-1Mton scale Proton Decay & Neutrinos	400-800 M€ 400-800	Civil engineering: 2012-2013 2012-2013	- multi-purpose - 3 different technological options - needs huge new excavation - most of expenditures likely after 2015 - worldwide sharing
Properties of neutrinos: Double beta experiments DB Decay	50-200 M€ 50-200	2013-2015 2013-2015	- explore inverted hierarchy scenario - 2 experiments with different nuclei (and desirably more worldwide) - large cost range due to large range of isotope prices
High energy universe: <u>Gamma rays:</u> Cherenkov Telescope Array CTA γ telescope <u>Charged Cosmic Rays:</u> Auger North Highest CR <u>Neutrinos:</u> KM3NeT ν telescope	100 M€ (South) 50 M€ (North) 50-100 85 M€ 85 250 M€ 250	first site in 2010 2010 2009 2009 2011 2011	Physics potential well defined by rich physics from present gamma experiments Confirmation of physics potential from Auger South results expected in 2007 FP6 Design Study. Confirmation of physics potential expected from IceCube and gamma ray telescopes. Physics Design Report and Proposal expected in 2009.
Gravitational Waves: Third generation ground- based Interferometer GW	300 M€ 350	Civil engineering 2012 2012	Conceived as underground laboratory

Current Japanese
Programs

Same level
as ApPEC Road Map

XMASS-I, NewAge,...



XMASS-II

Super-Kamiokande



Mega-ton

CANDLES
others



XMASS-II
CANDLES-X
others

CANGAROO



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TA



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IceCUBE
(Japanese participation)



LCGT

- Transition to the next stage
 - Projects become 'big'
 - Need selection and concentration of money and man power
 - International
- But we need
 - new idea and new directions
 - new techniques
- Please enjoy this symposium