

Cryogenics Subgroup Report

Aug. 26, 2016

KAGRA F2F meeting @Toyama

Toshikazu Suzuki, KEK

KAGRA Cryogenics subGroup



Takayuki TOMARU
Chief
KEK, Assoc. Prof.



Nobuhiro KIMURA
Cryostat sub-chief
KEK, Assoc. Prof.



Kazuhiro YAMAMOTO
Cryo-Payload sub-chief
ICRR, Assist. Prof.



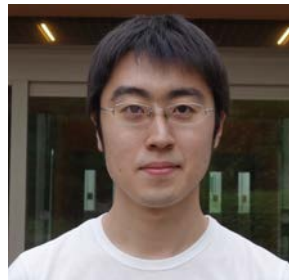
Toshikazu SUZUKI
Cryostat, Payload
KEK, Prof.



Rahul KUMAR
Simulation, Payload
KEK, PD



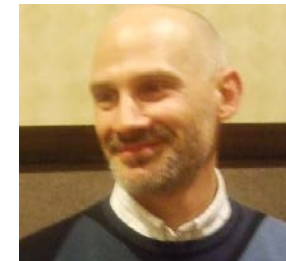
Kieran CRAIG
Cryogenic Payload
ICRR, PD



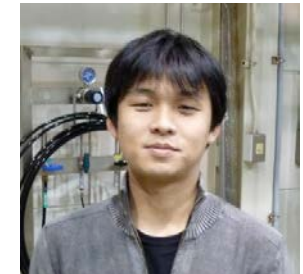
Takafumi USHIBHA
Cryogenic Payload
U-Tokyo, PD



Yuki Inoue
Cryogenic Payload
AS, PD



Helios VOCCA
HCB, Perugia U,
Assist. Prof.



Suguru TAKADA
Cryogenics
NIFS, Assist. Prof.

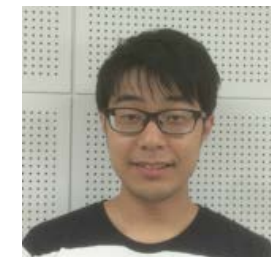
Students



Hiroki TANAKA
Cryo-Payload, Q
ICRR, D1



Takahiro MIYAMOTO
Cryo-Payload
ICRR, D1



Tomohiro YAMADA
Cryo-Payload
ICRR, M1

Technicians



Shinichi TERASHIMA
Machining
KEK, Technical Staff



Yoshikazu. NAMAI
Welding, KEK
Technical Staff

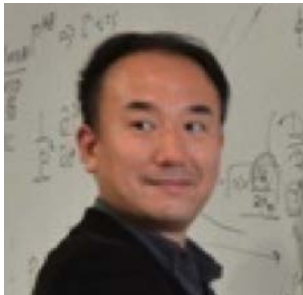


Ayako UEDA
Exp. Assistant, KEK
Technical Staff



Ayako HAGIWARA
CAD
KEK, Technical Staff

New KEK GW group members



Kazunori Kohri
Theory, KEK, Assoc. Prof.

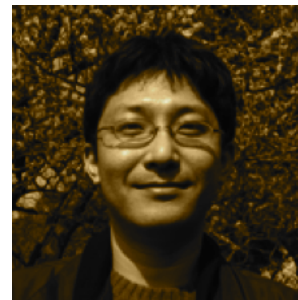


Yoshihiro SATO
Vacuum, KEK, Engineer



Sakae ARAKI
Surveying, KEK, Engineer

*Ioka-san has head-hunted
to Kyoto Univ.*



Progress of CRY in this half year

- 1st cryo-payload (w/o platform) was fabricated.
- 2nd -3rd cryo-payload w/o PF is under fabricating.
- Platform design is (almost) completed.
- Control of cryo-payload is under performing.

→ *Rahul*

- Hydro-Catalysis Bonding btw prototype sapphire mirror and sapphire ears is done.

→ *Kieran*

- EXC and EYC cryostats installation and assembling were done.
We starts process of cooling tests for both ends.
- Piping, cabling and DAQ are under preparing.

→ *Suzuki*

Major Milestones of CRY toward bKAGRA-1

- 2016. 8 - 10 Cool-down test of X-end and Y-end cryostats
- 2016. 12 End of fabrication of 4-cryogenic pendulums
- 2017. 6 - 8 Assembly of sapphire parts onto two End Mirrors (ETMs)
- 2017. Cryogenic test of ETMY -> Can be canceled
- 2017. 8 Assembly of sapphire parts onto two Input Mirrors (ITMs)
- 2017. 9 – 10 Cryo-Payload installation into the Y-end cryostat
- 2017. 8 – 11 Cryogenic test of ETMX
- 2017. 12 ETMX installation into cryogenic payload (pendulum)
- 2018. 1 Cryo-Payload installation into the X-end cryostat
- 2018. 1. Short test of Michelson by Cryo-Payloads at room temperature
- 2018. 2 - 4 Cool down of the X-end and Y-end Cryo-Payloads.
- 2018. 3 bKAGRA-1 run

Updated
-> Kieran

