

Progress report on
Collaboration with LSC

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Progress after last f2f meeting ...

LCGT f2f meeting (2nd Feb. 2012)

- ❖ We agreed on “iKAGRA data will be shared for GW global network”, and starting the negotiation with LSC/Virgo.

Discussion with LSC and Virgo (Feb.-March 2012)

- ❖ Contact to LV responsible members (Kajita)
- ❖ EVO Meeting, 3/13 0:00JST (Kajita, Kanda)
- ❖ Discussion in LVC, Boston, 3/22 (Nakatani)

We presented KAGRA's opinion to join at iKAGRA 2015.

Full exchange should require comparable sensitivity of detectors.

Before full exchange, there might be in 'transition period'.

LSC would like to prepare the draft, similar to pre-operation phase MOU between Virgo and LSC.

- ❖ LV council 3/21 (Hayama)

LSC discussed collaboration with other group, e.g. operating/pre-operating, double citizenship etc.

Progress (cont'd)

Triologue cascaded to two dialog (mid of this June)

- ❖ LIGO propose to split tripartite MOU negotiation to LSC-KAGAR and Virgo-KAGRA.
- ❖ KAGRA and Virgo agree this policy.

LIGO sent the draft (20th June 2012)

- ❖ Good / Acceptable for us:

For issues on technical and human exchange for the research and construction is welcome, and seems no problem.

For data handling, it propose to share past LIGO data and KAGRA pre-operation data under the restriction of publication. It seems that LSC side kindly take care KAGRA situation.

- ❖ Not clear / No good / disagree for us:

Draft should be split to the general part and attachments.

Definition of 'pre-operation'

Symmetric description

Feedback to LSC (July 2012)

We sent our opinions to modify the draft. Still we are negotiating.

Past and Current MOU's

TAMA –

- ❖ **LIGO** (Mar 15, 1997)

- No.1 Locking system (Mar 15, 1997)

- No.2 Mirror imperfection (Sep 1, 1998)

- No.4 Interferometer simulator e2e (May 1, 2000)

- No.5 Seismic attenuation technology (Mar 20, 2000)

- ❖ **VIRGO** (May 6, 1998)

- No.1 Optimization of a power recycled interferometer (Jun 1, 1998)

- ❖ **TWG** (Feb 7, 2000)

- No.A Data analysis (Feb 7, 2000)

- No.B Data analysis (2005)

data analysis, especially signal/noise characterization with Univ. of Sannio at Benevento

- ❖ **ROG** (Jul 8, 2003)

coincidence search analysis with resonant bars of Roma univ.

Past and Current MOU's (cont'd)

KAGRA (LCGT) –

MOU's have been established between **ICRR** Univ. Tokyo and others.

- ❖ ICRR – **Caltech LIGO** Laboratory (Aug. 2009, Nov. 2010)
Quarter request submission, Support to collaboration with researchers of LSC
- ❖ ICRR – **EGO/Virgo**
Exchange technical information and R&D for ET
- ❖ ICRR – **GEO** (Glasgow)
Exchange technical information and R&D for ET
- ❖ ICRR – **Shanghai** United Center for Astrophysics
Advanced study for next generation techniques
- ❖ **Sannio** University
- ❖ **Tsing-Hua** University (Taiwan)
- ❖ Faculty of Life and Physical Sciences, **UWA**
- ❖ SICCAS-GCL Research Development Center, **Shanghai** Institute of Ceramics
- ❖ School of Science, **LSU**
- ❖ **Adelaide University** It will be established soon.
- ❖ **GEO** (AEI) in preparation
- ❖ **KGWA** (Korean Gravitational wave Association) in preparation