

Feb. 12th, 2016

Message from KAGRA on the discovery of Gravitational Wave signal by LIGO-Virgo collaborations

We, the KAGRA collaboration, congratulate the LIGO and Virgo collaborations for the discovery of the gravitational wave signal. It is a historic discovery where the whole field of gravitational waves and general relativity have been waited for.

It is really exciting news, because it is now clear that the studies of gravitational waves and massive compact objects, such as black holes and neutron stars, can be made by the present generation gravitational wave detectors including KAGRA.

KAGRA would like to complete the construction, achieve the high sensitivity and join the international gravitational wave network as soon as possible so that KAGRA can contribute to the new field of gravitational wave astronomy. Because KAGRA is located underground and going to use cryogenic mirrors, KAGRA is particularly suited to study gravitational wave signals below about 100 Hz, where many signals of mergers of black hole binaries are expected, as observed by LIGO.

In addition to the merger of black hole binaries, there are many astronomical objects to be studied with gravitational waves. For example, KAGRA wants to detect a birth of a black hole created by a coalescence of binary neutron stars and resolve the mystery of short gamma ray bursts with the other gravitational wave detectors and with the partners of multi-messenger astronomy.

Takaaki Kajita,  
for the KAGRA collaboration