Contribution ID: **14** Type: **Poster**

Holographic Bound on Remnant Boundary Area of Black Hole Merger

Using concomitantly the Generalized Second Law of black hole thermodynamics and the holographic Bekenstein entropy bound embellished by Loop Quantum Gravity corrections to quantum black hole entropy, we show that the boundary area of the remnant from the binary black hole merger in GW150914 is bounded from below. This lower bound is more general than the bound from application of Hawking's classical area theorem for black holes, since it does not depend on whether the remnant is a black hole or some other more exotic compact object.

Primary author: Prof. MAJUMDAR, Partha Sarathi (School of Physical Sciences, Indian Association for the Cultivation of Science)

Presenter: Prof. MAJUMDAR, Partha Sarathi (School of Physical Sciences, Indian Association for the Cultivation of Science)

Session Classification: Coffee+Posters session