Contribution ID: **60** Type: **Talk**

【454】Mass transfer stability shaping the merging BBH mass distribution

Wednesday 11 September 2024 15:15 (15 minutes)

With the remarkable success of the LVK consortium in detecting binary black hole mergers, it has become possible to use the population properties to constrain our understanding of the progenitor stars' evolution. The most striking features of the observed primary black hole mass distributions are the extended tail up to 100 solar masses and an excess of masses at 35 solar masses. In this talk, we discuss how detailed treatment of the donor's response to mass loss is essential for the formation of the $35\mathrm{M}_{\odot}$ excess and the extended tail from isolated binary evolution.

Author: Dr BRIEL, Max (University of Geneva)

Presenter: Dr BRIEL, Max (University of Geneva)

Session Classification: Gravitational Waves

Track Classification: Gravitational Waves