

# 第 52 回 RESCEU コロキウム



東京大学大学院理学系研究科 附属ビッグバン宇宙国際研究センター

日 時: 2021 年 10 月 11 日(月) 10:30 ~11:30

場 所: オンライン (Zoom)

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## Formation of the First-star Binaries

### Abstract

The first stars in the Universe, born at the redshift  $z \sim 20-30$ , bring an end to the dark ages of the Universe. While the first stars are thought to be born as massive stars, we know little about their multiplicity or related properties. In this talk, I will present the results of our recent radiation hydrodynamics simulations of cosmological first star formation, in which we follow gas accretion considering the ionization/dissociation feedback from multiple protostars with a newly developed adaptive mesh refinement (AMR) code with the adaptive ray tracing method, SFUMATO-RT. In all of the three systems we examined, we found that the first stars form as massive binaries. I will also shortly discuss a possible link of our results to gravitational wave events by BH mergers.

興味をお持ちの方の聴講を歓迎致します。