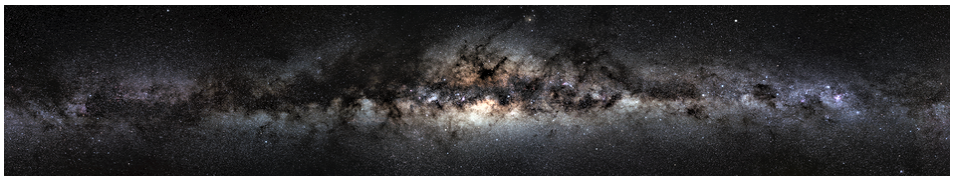

Contribution ID: **13** Type: **not specified**

Search for Primordial Black Holes with Microlensing

Friday, 10 December 2021 07:00 (40 minutes)

In this talk I present the recent constraints on primordial black holes (PBHs) with microlensing methods, based on the Subaru Hyper Suprime-Cam (HSC) and the Optical Gravitational Lensing Experiment (OGLE) data. With Subaru HSC data, we obtained the tightest bound on the abundance of PBHs in the mass range of masses from asteroid to moon masses, but found a possible one candidate. We also reported the ultra-short timescale microlensing events of OGLE can be interpreted by PBHs of Earth mass scales. In fact we argue that both HSC microlensing event and OGLE events are consistent with PBHs of Earth mass scale, and a further study would be worth exploring, e.g. with VRO LSST observation of Galactic bulge.

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Session Classification: Review