

On detecting the reionization sources

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Our Universe is re-ionized by first galaxies formed at $z > 6$. However it is rather challenge to observe such galaxies directly as, except a few brightest ones, most of them are far below the detecting limits of existing and upcoming telescopes in near future. The Cosmic Near-Infrared Background (CNIRB) contains the cumulative radiation from all galaxies formed in the full star formation history of the Universe. It could be a useful tool for studying the galaxies below detecting limits. I will talk about the potential that uses the CNIRB and the emission line intensity mapping (IM) to detect the reionization galaxies.

I got the B.S. degree for astronomy from Beijing Normal University in 2005, and the PhD degree in astrophysics from the National Astronomical Observatories, Chinese Academy of Sciences, in 2012. From 2013 to 2016 I did my postdoc research at Scuola Normale Superiore, Pisa, Italy. Now I work at the NAOC as a candidate for the Hundred Talents program（Young Talents，百人计划青年俊才项目候选人）. I mainly work on the theoretical models for reionization and the 21cm signal from hydrogen, and the first stars, galaxies and black holes.