

## R18a New Strong Gravitational Lens Candidates from the HSC SSP

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Strong gravitational lensing by galaxies and groups/clusters is an important tool for a variety of science goals, including studies of galaxy structure and evolution, the stellar initial mass function, the dark matter distribution of groups and clusters, and cosmology. However, strong lenses are rare, requiring deep, high-resolution imaging over large areas of the sky to discover in a systematic way. The Hyper Suprime-Cam Subaru Strategic Program (HSC SSP) is an ideal survey to search for strong lenses due to its deep multiband imaging and high data quality. I will discuss recent lens searches in the latest data release (DR4) as part of the Survey of Gravitationally Lensed Objects in HSC Imaging (SuGOHI). We have discovered new galaxy-galaxy and lensed quasar candidates using a variety of methods, including automated lens-finding algorithms, cluster searches, and machine learning techniques.