

V203b **SuMIRe-PFS [4] – Expected Sensitivity and Data Reduction Pipeline**

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The Prime Focus Spectrograph (PFS) is a next-generation, fiber-fed, multi-object spectrograph of the Subaru Telescope, which is expected to start science operations in 2019. Thanks to its wide field-of-view (~ 1.3 deg² diameter), high multiplicity (~ 2400 fibers), and wide wavelength coverage (from 3800 Å to 1.26 μm), PFS is expected to be a powerful survey instrument of the Subaru Telescope to cover a wide range of science cases such as Cosmology, Galaxy Formation and Evolution, and Galactic Archaeology.

The sensitivity calculation and the data simulation are important to plan future large surveys with PFS. The estimation of the expected sensitivity of PFS is now ongoing with implementing more realistic assumption including updated instrument throughputs and sky/moon conditions. On the other hand, accurate sky subtraction is a key to achieve high spectral quality, and studies on the data reduction method are now in progress. In this presentation, we report the expected sensitivity and the current status of the data simulation and data reduction pipeline as well.