

NGC 5044

Observation plan

One standard mode 100 ks pointing centered on the nucleus of NGC 5044.

Immediate objectives

- [1] Measure the velocity widths of emission lines to an accuracy of 30 km/sec to reveal the hot gas kinematics and details of AGN feedback.
- [2] Probe the star formation and chemical evolution by measuring the abundances of N, O, Ne, Mg, Al, Si, Fe, and Ni.
- [3] Search for evidence of charge exchange in a strongly multi-phase ISM.
- [4] Constrain the temperature and metallicity structure of the interstellar plasma, and determine the cooling rate of the gas to understand the relationship between the hot and cold (e.g., CO) gas.
- [5] Look for effects of resonancescattering, and utilize the results to help determine the 3-D distribution of the gas.