GX13+1

Observation plan

30ks neutral density filter and offset pointing to reduce count rate to 100c/s in Resolve. This observation – actually this will be 40ks due to the overlap in target with the Galactic Diffuse observation (GX 13+1 halo).

1/8 window mode for Xtend.

Immediate objectives

[1] measure the FeXXVI absorption line profile (this is the simplest, strong line seen) to distinguish between magnetic and thermal/radiative wind launch mechanisms (ion column along the line of sight as a function of velocity)

[2] measure the emission line contribution to FeXXVI to determine the solid angle of the wind.

[3] measure all ion columns as a function of velocity to determine the radial density profile of the wind to give an independent diagnostic of the wind launch mechanism. (paper 2)

[4] use the variability of the hard X-ray source on short timescales to explore the response of the wind and get an independent diagnostic of the wind density structure