Mrk 766

Observation plan

Mrk 766 is approved as a priority C target, to be observed for 80 ks. To investigate the behavior of spectral components in the highly accreting AGN, in particular its variable absorption features, we asked for a single observation of the source, to be possibly analyzed in several time bins, depending on the source state.

Resolve should be run in its normal mode, with no filter.

Xtend should be run in full window mode.

Immediate objectives

The proposed observation aims to:

[1] Disentangle the highly ionized gas and its connection with other ionized phases (i.e. the complex warm absorber and the ultra-fast outflow)

[2] Study the iron line emitting region; assess the presence and origin of a broad wing; use relativistic reflection models to constrain the black hole spin, iron abundance and inner disk inclination

[3] Investigate the flux-resolved variability of a source accreting in a high Eddington regime