PDS 456

Observation plan

Given the dramatic spectral variability of PDS 456, we asked for a single long observation of the source to best characterize its Fe-K Ultra-Fast Outflow (UFO). Given recent publication of the UFO disappearing in the highest flux states, we will consider using Swift/XRT monitoring to avoid these periods, if it does not have a large impact on the satellite operation planning.

Immediate objectives

[1] Confirm the presence of the Fe-K UFO; measure its physical parameters via the line shift, width and equivalent width (interpreted as column density)
[2] Resolve the velocity structure of the trough for the first time
[3] Search for an Fe-K emission line, possibly a P-Cygni profile, to constrain the mass outflow rate
[4] Make a physical connection between the Fe-K UFO and soft X-ray absorption features