



# X-RAY ASTRONOMY 2019

*Current Challenges and New Frontiers in the Next Decade*

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## The X-ray view of the repeat changing-look AGN NGC 1566

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NGC 1566 is one of only a handful of AGN that have undergone more than one changing-look event, having changed from Sy 1.9 to Seyfert 1.2 and at least five times. The most recent event was in 2018, where the source increased in X-ray flux by a factor of  $\sim 70$  and nearly three magnitudes in the UV in under 9 months, coinciding with the reappearance of strong broad lines in the optical spectra.

For the first time, high quality X-ray spectra were taken at the peak of the outburst. The spectra show a classic Seyfert 1 X-ray spectrum, with a soft excess, compton hump, and iron line, as well as outflowing absorption in the high-resolution RGS spectrum. The remarkable speed with which this 'standard' AGN develops, and the repeating nature, offers a unique insight into the changing look phenomenon.

### Topic

Active Galactic Nuclei: accretion physics and evolution across cosmic time

### Affiliation

ESA/ESAC

**Author:** Dr PARKER, Michael (ESA/ESAC)

**Co-authors:** SCHARTEL, Norbert (ESA - ESAC); Dr GRUPE, Dirk; KOMOSSA, S. (MPIfR); Prof. HARRISON, Fiona; Prof. KOLLATSCHNY, Wolfram; Ms MIKULA, Rebecca; Dr SANTOS-LLEO, Maria; Ms TOMAS, Laura

**Presenter:** Dr PARKER, Michael (ESA/ESAC)

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