NEBEL*

NGC 1566 : Estimates of Broad Emission Lines

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NGC 1566-Abstract

Composite Image
Produced by Hubble
June 2, 2014

NGC 1566 is a highly variable changing look AGN that triggered Integral and ASAS-SN in June 2018 during a flare that saw a jump of a factor of about 30 in the X-ray and by several magnitudes in the Optical We will present Cloudy models of different line emitting regions of the AGN in an attempt to explain the mechanisms behind changing look AGN.

Observations
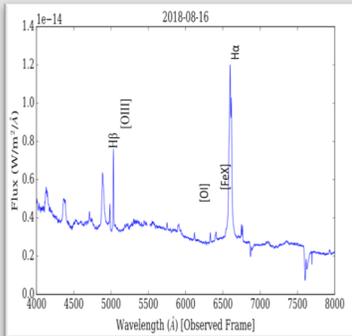
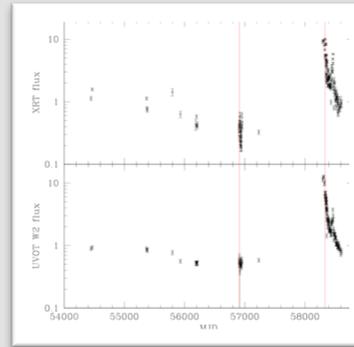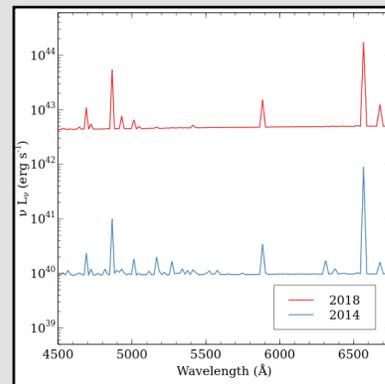

Left Panel: Seyfert 1.5. August 2018
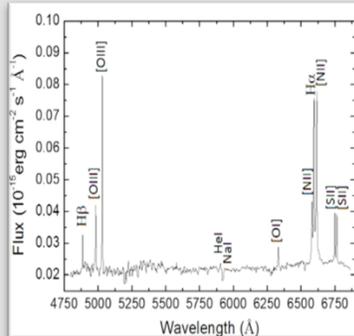
Right Panel: Seyfert 2. October 2013- Da silva+2017

Swift UV and X-ray Light Curves

X-Ray (top) and UVOT W2 (bottom) light curves of NGC 1566 starting in 2007 to 2019. The red lines show the times when the optical spectra were taken.
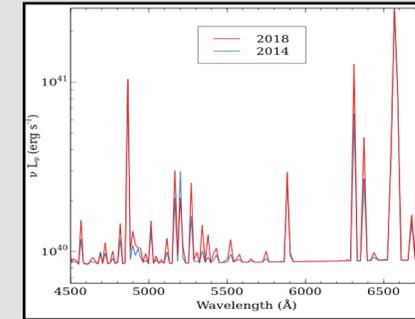
Cloudy: BLR Model

Unfortunately, we could not perfectly reproduce The BLR lines. The reason is probably our choice of SED.
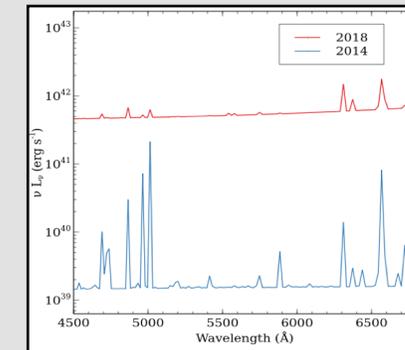
n(H)= 10^{10} cm^{-3}

Cloudy: NLR Model

The NLR lines look like what we were expecting to see.

n(H)= 10^5 cm^{-3}

Cloudy: Torus Model

It shows the corona lines from the intermediate line region.

n(H)= 10^6 cm^{-3}

*NEBEL in German means both fog and nebula