



University of
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1/3

Reverberation Mapping of AGN on a sub-daily cadence

**Intense accretion disc reverberation
mapping of nearby AGN**

Multi-year programme: 2(+) years

Swift

X-ray + 6 UV/optical filters (1 per day)

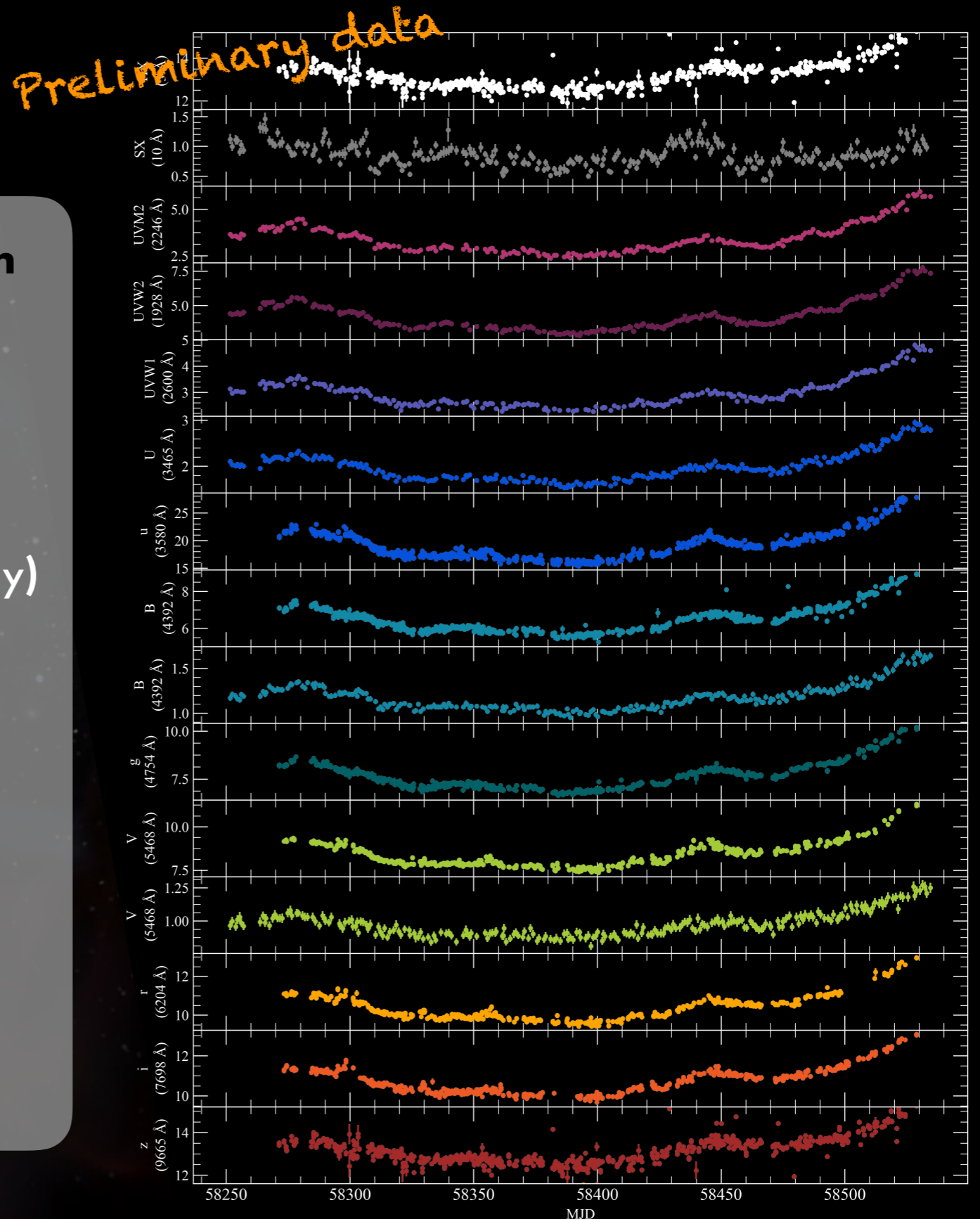
Las Cumbres Observatory (LCO)

7 UV/optical bands (~1- 3 per day)

Test case:

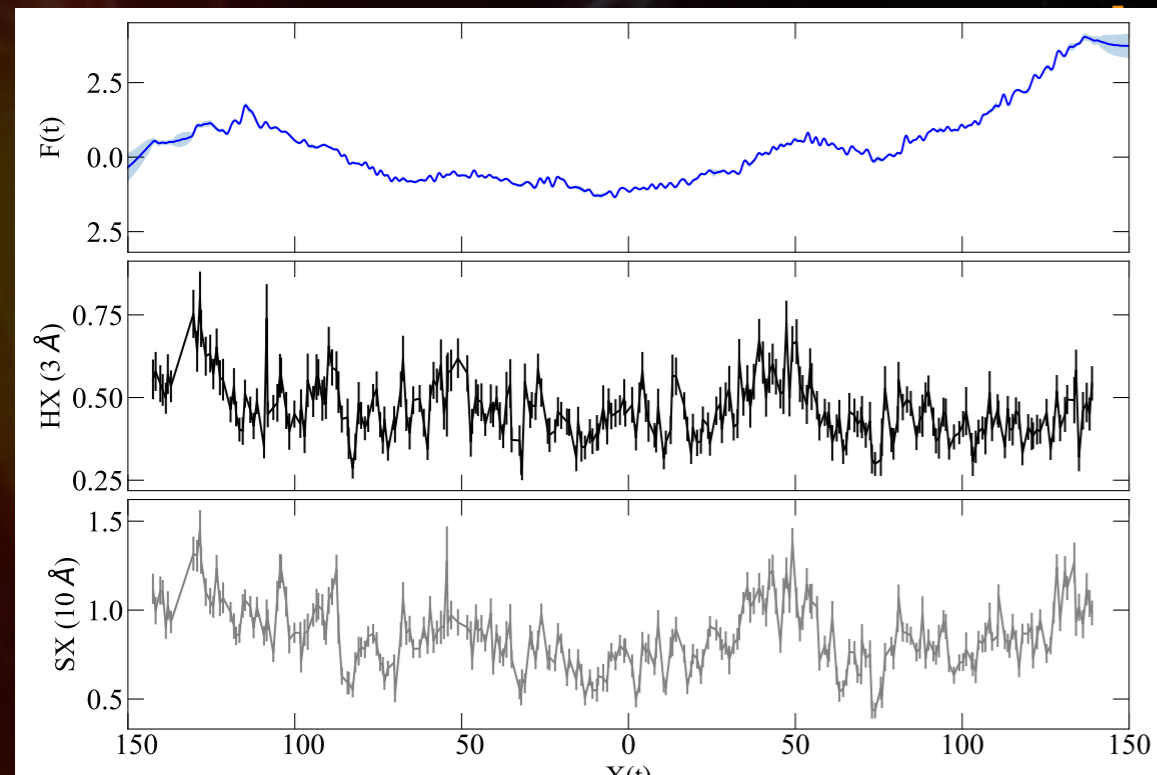
Fairall 9

- Are discs bigger than predicted?
- What is the SED of the disc?



Accretion disc reverberation mapping

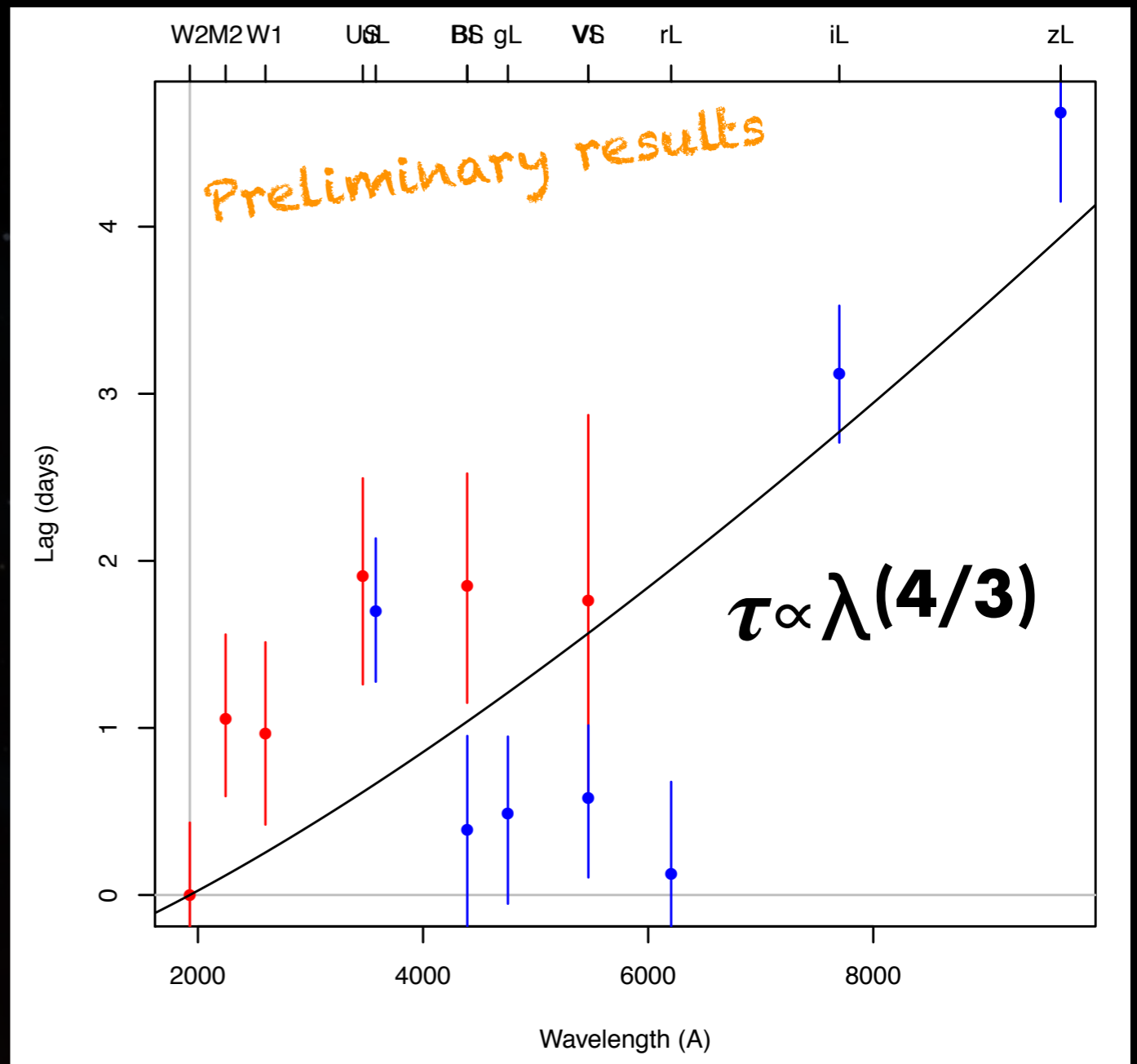
Disconnect between
UV/optical and X-rays?



Driving UV/optical light curve (CREAM)
is smoother than X-ray

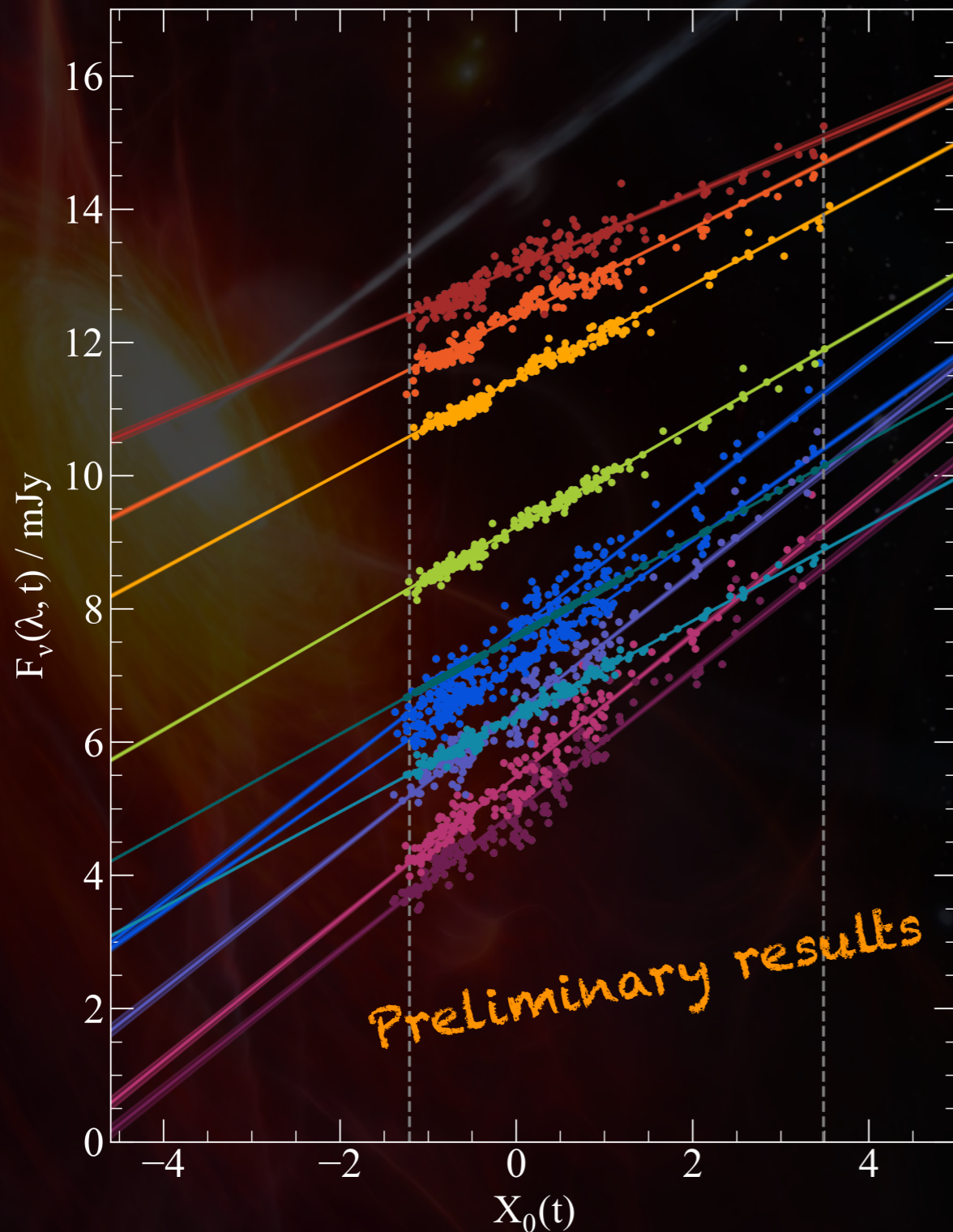
Is the UV/optical driving light curve re-
processed X-ray at another site?

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ICCF & CREAM (Starkey+2016)

Spectral decomposition of variable component



Decomposition of the variable spectrum
Consistent with an accretion disc

$$F_v \propto \nu^{1/3}$$

Significant contamination
of the BLR - **Balmer continuum**

