

## Z214a XRISM Observation of Nearby Compton Thick AGN in Circinus Galaxy

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To reveal the properties of obscuring material in accreting supermassive black holes, often referred to as “torus”, is a key issue to understand the feeding and feedback mechanisms of active galactic nuclei (AGNs). X-ray observations are a powerful tool for studying AGN tori, because, unlike radio line and infrared continuum emission, X-rays can trace all matter including gas and dust at various physical conditions. Heavily obscured AGNs, particularly Compton thick ones, are ideal laboratories because the X-ray spectra are dominated by reflection components from the tori.

In this talk, we report the initial results of the XRISM PV observation of the nearby Compton thick AGN in Circinus Galaxy. The Resolve spectrum, integrated for 300 ks, shows many emission lines of various elements from neutral matter and from highly ionized plasma. The profiles of iron-K fluorescence lines and K-edge are measured with unprecedented accuracies. We discuss the properties of torus revealed by the XRISM observation, including the physical state, location, velocity field, and metallicities of the torus.