



# - RAY ASTRONOMY 2019

*Current Challenges and New Frontiers in the Next Decade*

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## The UV-X-ray high-resolution view of outflowing winds in AGN: the case of I Zwicky 1

*Wednesday, 11 September 2019 15:45 (15 minutes)*

Almost twenty years of X-ray grating observations allowed us to characterize the multi-component ionized gas, outflowing from active galactic nuclei, with unprecedented accuracy. XMM-Newton combined with HST have been key in unveiling the secrets of outflowing winds.

Here I will show the results of our most recent multi-wavelength campaign on the narrow line Seyfert 1 IZw1 (230 ks with XMM and 6 orbits of HST time). The simultaneous observation shows a surprising UV-X warm absorber behaviour as well as clearly pointing to a line-driven wind launching mechanism of the plasma (Silva, Costantini et al. 2018). I will show how the observational elements of this and of previous observations clearly challenge the classical view of a conical-shaped outflow in ionization equilibrium. The observational evidences indeed strongly favour episodes of gas ejection, possibly from the accretion disk.

### Topic

Active Galactic Nuclei: accretion physics and evolution across cosmic time

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