



ID contributo: 36

Tipo: non specificato

Feeding and feedback in radio galaxies: an X-ray perspective

martedì 17 settembre 2019 14:50 (20 minuti)

Observations performed in the last decades have shown that supermassive black holes (SMBHs) and cosmic structures are not separate elements of the Universe. While galaxies have sizes roughly ten orders of magnitude larger than SMBHs, black holes would not exist without matter feeding them, and cosmic structures would not be the same without feedback from SMBHs. Powerful winds/jets in active galactic nuclei (AGN) may be the basis of this co-evolution. X-ray observations trace both the cold/feeding and hot/ionized feedback phases. We show the Chandra HETG spectral analysis of two radio galaxies, 3C 390.3 and 3C 120. Complex emission/absorption features are present in the soft X-rays and Fe K band. We detect a hot gas with temperature $kT \sim 0.5\text{-}1\text{keV}$ from broad ionized Fe L-shell lines which may originate from a $\sim\text{kpc}$ scale shocked bubble inflated by the wind/jet. Moreover, the shape and strength of the neutral Fe K line, along with partial covering observed with XMM-Newton in PKS 2251+11, suggest that the material feeding the accretion disk, or torus, may be in the form of Compton-thick, clumpy clouds. Such systems may likely be late stage mergers and they allow us to extend the parameter space traced by winds in Seyferts and ULIRGs.

Autore principale: TOMBESI, Francesco (University of Rome "Tor Vergata")

Relatore: TOMBESI, Francesco (University of Rome "Tor Vergata")

Classifica Sessioni: The most famous 3C sources