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The circum-nuclear environment and jets of active galaxies at $z \sim 0$: Recent results from a multi-frequency investigation

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Abstract. We report results from a multi-frequency investigation of very nearby accreting supermassive black holes. We seek to test the hypothesis that imprints of AGN feedback are present at $z \sim 0$. Our sample contains about 130 AGN which were chosen to have redshifts less than 0.02, so our optical imaging typically has several spatial resolution elements across the host galaxy. In addition to optical IFU measurements for all the 130 objects, we have GMRT and archival VLA imaging for subsets of the sample, and also ATCA, ASTROSAT and Chandra observations for select objects. We present our most recent results based on the multi-frequency data, for the systematics of the sample as a whole and on individual objects, that includes a binary black hole precursor.

Keywords. galaxies: active, galaxies: black holes, surveys: multiwavelength

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