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The properties of the dusty inner regions of nearby QSOs

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Abstract. We present MIR spectroscopy and photometry obtained with CanariCam on the $10.4\,\mathrm{m}$ Gran Telescopio CANARIAS for a sample of 20 nearby, MIR bright and X-ray luminous quasistellar objects (QSOs). We find that for the majority of QSOs the MIR emission is unresolved at angular scales $\sim\!0.3$ arcsec. We derive the properties of the dusti tori that surround the nucleus based on these observations and find significant differences in the parameters compared with a sample of Seyfert 1 and 2 nuclei. We also find evidence for polycyclic aromatic hydrocarbon (PAH) features in the spectra, indicative of star formation, more centrally peaked (on scales of a few hundred pc) than previously believed.

Keywords. galaxies: active, galaxies: quasars, methods: spectroscopy, methods: photometry

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