

DATA REDUCTION AND MODELLING OF DUST EMISSION IN THREE NEARBY ACTIVE GALACTIC NUCLEI

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The aim of this thesis is to process and model infrared spectrophotometric observations of three objects from the AGN sample in which the existence of dust in the polar region was established: ESO 323-G77, ESO 428-14, NGC 5506. Both archival and new, previously unpublished observations from the VLT telescope at the Paranal Observatory in Chile will be included. For modelling, the classic dust torus model will be used as well as a new model that includes dusty winds in the form of a hollow cone in the polar region. The publicly available code CIGALE will be used for fitting. As the main result, the parameters of the geometry and physical properties of the dust will be determined. This will be the first step towards characterising the dusty winds of a larger sample of AGNs, with the aim of establishing the conditions under which they arise and how they affect the galaxies in which they are located.