

DUST HEATING BY ULTRAVIOLET ACCRETION DISK RADIATION

R.O. Laguna and S.M. Viegas-Aldrovandi

Instituto Astronômico e Geofísico, USP, Brasil

ABSTRACT. Since the first observations, the continuum of active galactic nuclei have been represented by a power law ($F_{\nu} \propto \nu^{-\alpha}$). Recently, infrared and ultraviolet observations lead to the presence of thermal components at these ranges.

The Seyfert 2 galaxies show an ultraviolet excess at 10μ - 20μ associated to thermal emission by heated dust (Neugebauer 1978, *Physics Scripta*, 17, 149; Neugebauer, Becklin, Oke, and Searle, 1976, *Ap. J.*, 205, 29).

The extrapolation of the optical law does not provide enough ionizing photons neither the necessary ultraviolet luminosity that explains dust heating.

In this paper, we analyze the contribution of an ultraviolet accretion disk component (Malkan and Sargent 1982, *Ap. J.*, 254, 22 (Paper I); Malkan 1983, *Ap. J.*, 268, 582) added to the non thermal continuum explaining the observational values of $H\beta$ luminosity, the intensity ratio ($HeII\lambda 4686/H\beta$) and the infrared luminosity associated to thermal emission of dust grains heated by the central source.

Key words: GALAXIES-ACTIVE