INSIDE THE CENTRAL CAVITY

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The Circum-Nuclear Disk (CND) is probably a by-product of the explosive event which created Sgr A East. Its inner edge of radius R \sim 1.7pc is well developed and comprises the Central Cavity (CC) which is filled with \sim 260 M $_{\odot}$ of ionized gas. ISM appears to flow through the CND into the Central Cavity at a rate of $\dot{M} \sim 0.01~\rm M_{\odot} \rm yr^{-1}$. Dust and Lyman continuum luminosities of the central 1.25 parsec, corrected for photons not absorbed by dust and gas inside the CC are $\sim 10^8 \rm L_{\odot}$ and $\sim 10^{51}~\rm Lyc$ photons s $^{-1}$, most of which are provided by a cluster of 24 hot and massive stars, which also provide $\sim \frac{1}{3}$ of the integrated K-band flux density (see the recent review by Mezger et al., 1996). A larger number of cool M- and K-giants and more than a million low-mass MS stars provide the remaining flux density, which comes from a diffuse background emission first seen in our NIR mosaic maps (Zylka et al., 1997).

The compact synchrotron source $\operatorname{Sgr} A^*$ with a mass of $\sim 2\text{-}3x10^6 M_{\odot}$ appears to be a starving black hole. It has a well developed radio spectrum but only upper limits for the flux densities in the NIR and X-Ray regimes. The luminosity of $\operatorname{Sgr} A^*$ is only a few hundres L_{\odot} . The true size of the radio source appears to have been resolved by mm-VLBI (Duschl, 1997).

The spectrum integrated over the central parsec is dominated by stellar radiation reprocessed by dust and resembles the spectrum of a Seyfert 2 galaxy. The reprocessed radiation masks completely the radiation associated with Sgr A*. More details, related specifically to the stellar population within the central 1.25pc will be presented in a forthcoming paper (Philipp et al., 1997).

References

Duschl W.J., 1997, in these proceedings. Mezger P.G., Duschl W.J., Zylka R., 1996, A&AR, 7, 4. Philipp S., Zylka R., Mezger P.G. et al., 1997, in prep. Zylka R. et al., 1997, in these proceedings.