

Figure 1: $[OIII] \lambda 5007 \text{ \AA}$ integrated profile along the slit at P.A. 23° . The prominent individual components producing the observed red asymmetry are indicated as well as the obtained fit for the overall profile.

associated with a system of giant clouds confined to the inner six arcsec from the nucleus. Considering the $[OIII]$ luminosity, $L([OIII]) = 1.6 \cdot 10^{40} \text{ erg} \cdot \text{s}^{-1}$, this gives a total mass $M_T = 5,000 M_\odot$ and energy $E_T = E_k(\text{kinetic}) + E_t(\text{turbulent}) = 3 \cdot 10^{51} \text{ erg}$ for the system of

clouds. This situation is similar to those observed in NGC 1068 ($M_T = 186 M_\odot$, $E_T = 3.7 \cdot 10^{50} \text{ erg}$; Pelat and Alloin, 1980) and in NGC 4151 ($M_T = 1,100 M_\odot$, $E_T = 4.7 \cdot 10^{50} \text{ erg}$; Pelat and Alloin, 1982) where a direct association between the nuclear radio emission and the clouds has been suggested (Wilson, 1983).

The $[OIII]$ emission towards the NE of the nucleus at P.A. 23° is intriguing. In this region, Hummel et al., (1983) noted the presence of a radio elongation. A broader $[OIII] \lambda 5007 \text{ \AA}$ line, $\text{FWHM} \approx 300 \text{ km} \cdot \text{s}^{-1}$ and FWQM (full width at quarter maximum) $\approx 500 \text{ km} \cdot \text{s}^{-1}$, is observed. This line is broader at FWHM than the same line in the SW region by a factor two to three (see Fig. 2). The existence of such a relation between the

TABLE 1: Emission line components in P.A. 23° . Derived parameters.

Component	V ($[OIII]$) $\text{Km} \cdot \text{s}^{-1}$	FWHM $\text{Km} \cdot \text{s}^{-1}$	I/I (tot.)
C_1	2352	140	0.06
C_2	2468	109	0.55
C_3	2604	110	0.23
C_4	2734	175	0.12
C_5	2942	175	0.04

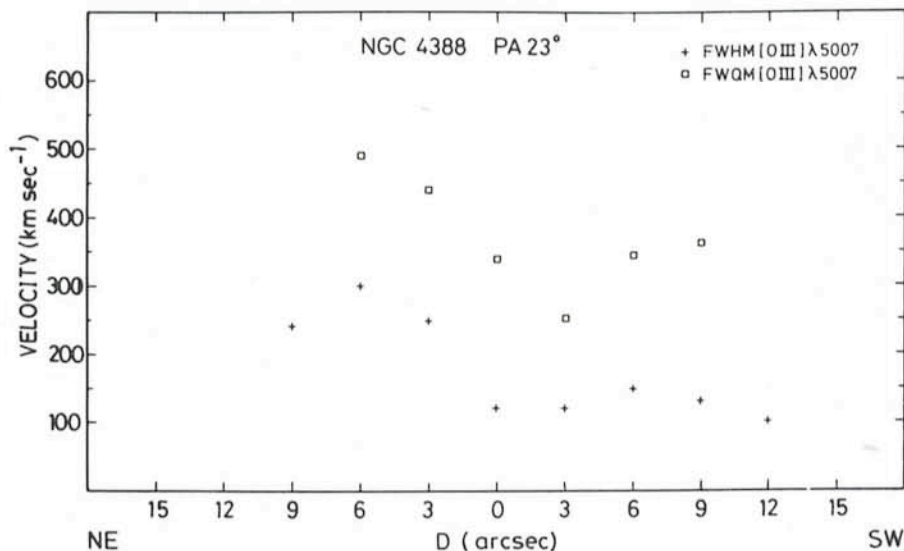


Figure 2: The FWHM and FWQM (full width quarter maximum) of the $[OIII] \lambda 5007 \text{ \AA}$ profile as a function of distance from the optical nucleus for position angle P.A. 23° .

radio emission and the emission line for large samples of Seyfert galaxies has been pointed out by different authors (Wilson and Heckman, 1985 and references therein) in terms of a $[OIII]$ luminosity and FWHM ($[OIII]$) vs. 21 cm radio luminosity correlations. Also in 3C 305 (Heckman et al., 1982), the same phenomena have been reported in the sense that the $[OIII]$ lines appear to be broader in the regions coincident with radio emission. This suggests a direct connection between the presence of anomalous motions, radial motions, turbulence, and the existence of radio synchrotron radiation, which needs further detailed studies.

A detailed study of the extended emission line region in NGC 4388 is contained in a forthcoming paper (Colina, L., Fricke, K.J., Kollatschny, W., Perryman, M.A.C., 1987, *Astron. Astrophys.* in press). A similar study, by the same authors, of NGC 2992 was published in *Astron. Astrophys.*, **178**, 51 (May (II), 1987).

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