Title : Dynamics of Galaxies and Galactic Nuclei
Editors : R. Spurzem
EAS Publications Series, Vol. ?, 2007

A HIGH-RESOLUTION LOOK AT NGC 6384: THE FIRST OBJECT OBSERVED WITH GHαFAS

K. Fathi[1], J. E. Beckman[1], O. Hernandez[2] and C. Carignan[2]

Abstract. At the commissioning run for the new Fabry-Perot system, GHαFAS, we successfully observed 17 fields including 16 galaxies and galaxy pairs, and one planetary nebula. Here, we present the kinematic maps from the first object observed with GHαFAS, at the 4.2m William Herschel Telescope on La Palma. This map is to date the highest resolution kinematic map available for this object with 0.4 arcsec/pix and covering 4×4 arcmin field.

1 Introduction

NGC 6384 is an SBbc LINER galaxy with an elliptical bulge, flocculent spiral pattern, and a large number of armlets which are smooth with no strong evidence of knots or dust lanes in the outer parts (Eskridge et al. 2002.ApJS.143.73). The inner part of the disk exhibits some non-ordered set of dust lanes. In the CO, no emission is detected in the center but a ring or spiral arm is seen several kpc from the center. This galaxy has been studied in the context of bar evolution, and in particular the bar-driven dust and star formation in its circumnuclear regions (e.g., Peeples & Martini 2006.ApJ.652.1097). Our new high-resolution kinematic maps of the Hα- emitting gas provides confirms the lack of star formation in the circumnuclear regions and a regular velocity field. An analysis of the observations presented here will follow.

[1] Instituto de Astrofísica de Canarias, La Laguna, Spain
[2] LAE, Université de Montréal, Montréal, Québec, Canada

DOI: (will be inserted later)

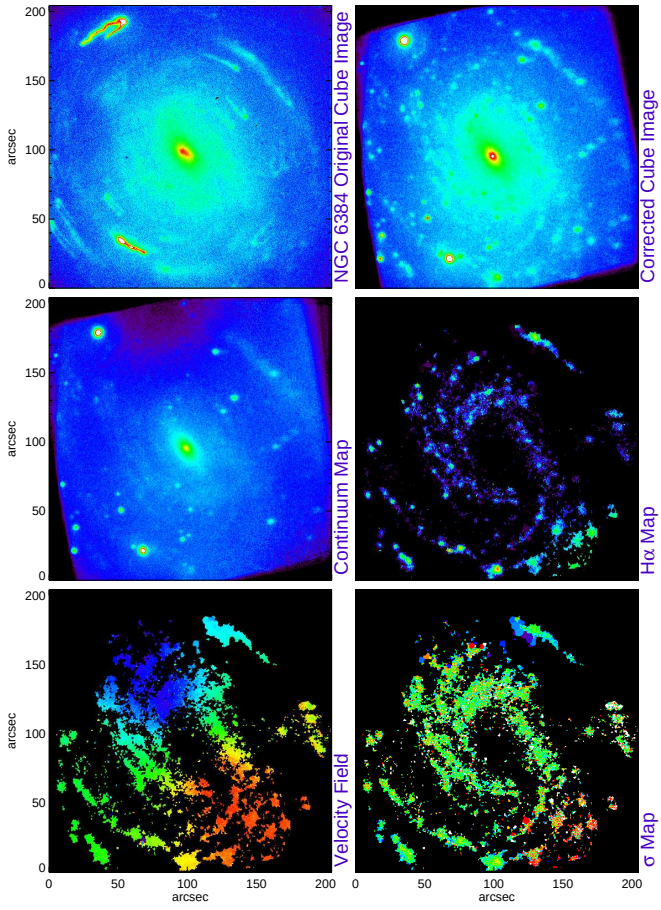

Fig. 1. After correcting for the rotation at the Nasmyth focus, we are able to derive the kinematics from the data cube. Removing the low signal-to noise spectra, we obtain the clean and reliable kinematic maps illustrated.

Galaxy: NGC 6384			
Mean Finesse	7.95	Observation date	July 3^{rd} 2007
Pabry-Perot order	765	Observation time	02:49:27 (UT)
Free spectral range	391.9 km/s	Mean seeing	1.5 arcsec
Channel width	16.33 km/s	Number of Channels	24
Scanning wavelength	6594.00 Å	Number of Cycles	54
Systemic velocity	1665 km/s	Exposure per cycle	10 sec/cy

Table 1. Specifications for the observation conditions, setup, and performance. Note that for the most of the observed objects we achieved a factor 2.5 higher Finesse value.