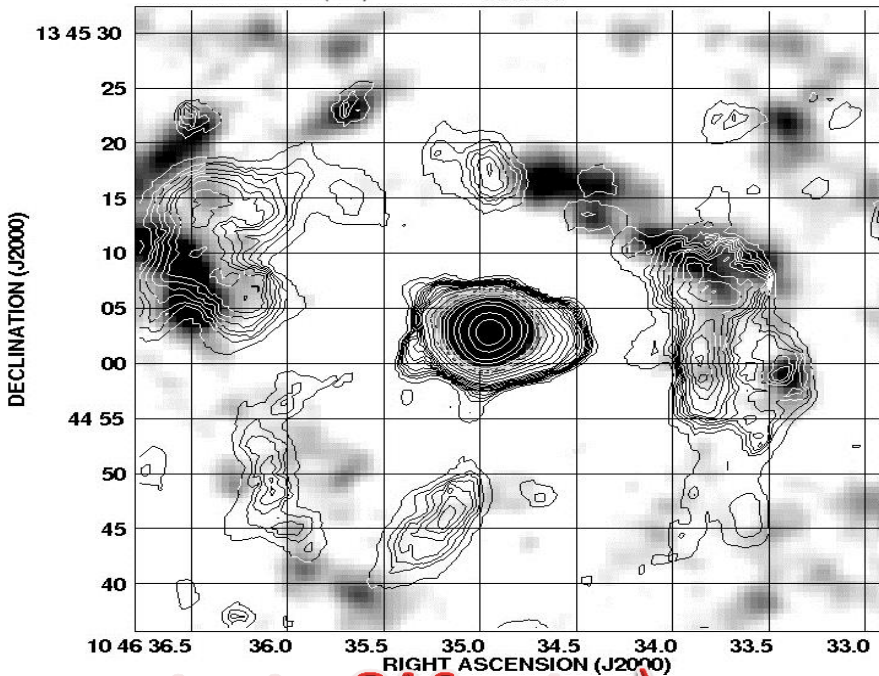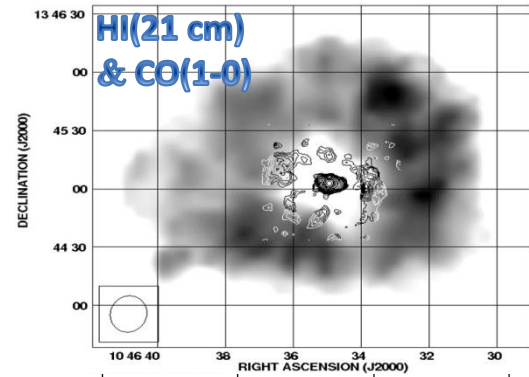# NGC 3367

SBc @ 43.6 Mpc

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I (8040)

HI(21 cm) & CO(1-0)
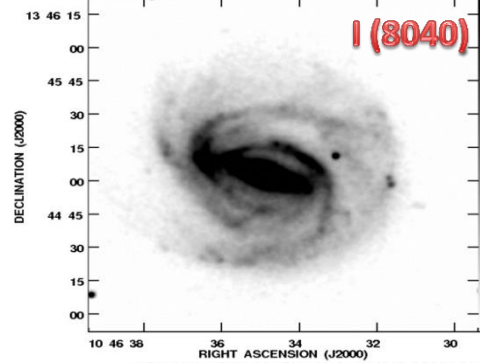
Molecular GAS CO(1-0) [contours]

STARS optical U [grey scale]

Velocity ∝ R
⟹ gas in solid body rotation?
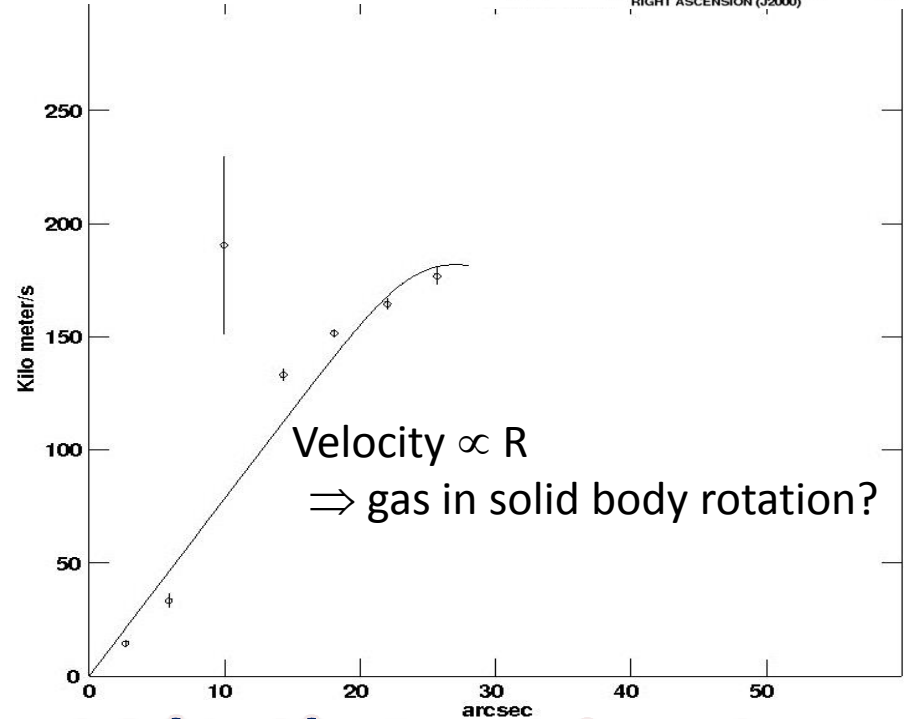
CO(1-0): Rotation Curve

NGC 3367 SBc @ 43.6 Mpc

Legend:
- **✕** — **v** (CO[1-0])
- **o** — Ω (CO[1-0])
- **•** — Ω (bar)
- | Bar semimajor axis

Axes: y-axis: v_CO(1-0) Omega_CO(1-0) (km/s 1/kpc); x-axis: Distancia Radial, R, (kpc)
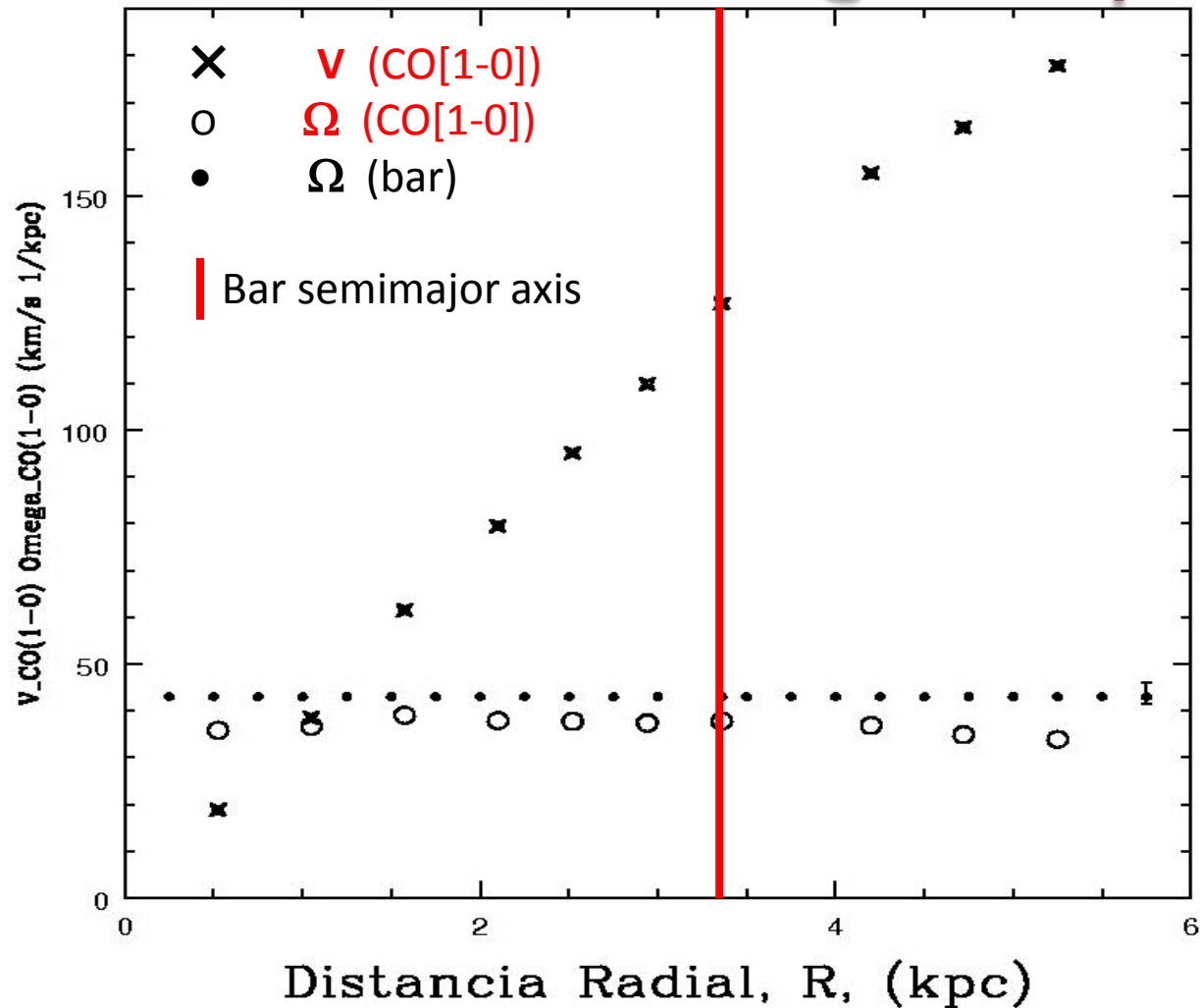
In Resonance theory:

ILR $\quad \Omega_{bar} = \Omega_{gas} - \dfrac{\kappa}{2}$

CR $\quad \Omega_{bar} = \Omega_{gas}$

OLR $\quad \Omega_{bar} = \Omega_{gas} + \dfrac{\kappa}{2}$

Shocks on the leading edge of the bar... $\Rightarrow$ ...gas is accreted into the nucleus...

However, a simple fit for $0 \leq R \leq 3.4\ kpc$:

$$\Omega_{CO(1-0)} \approx \Omega_{bar}$$

... there is $\sim 4\mathrm{x}10^{9}\ M_{Sun}$ in the center...*feeding the active black hole which drives a synchrotron bipolar outflow*

$\Rightarrow$ other accreeting mechanism? swallow of a gas rich small galaxy?