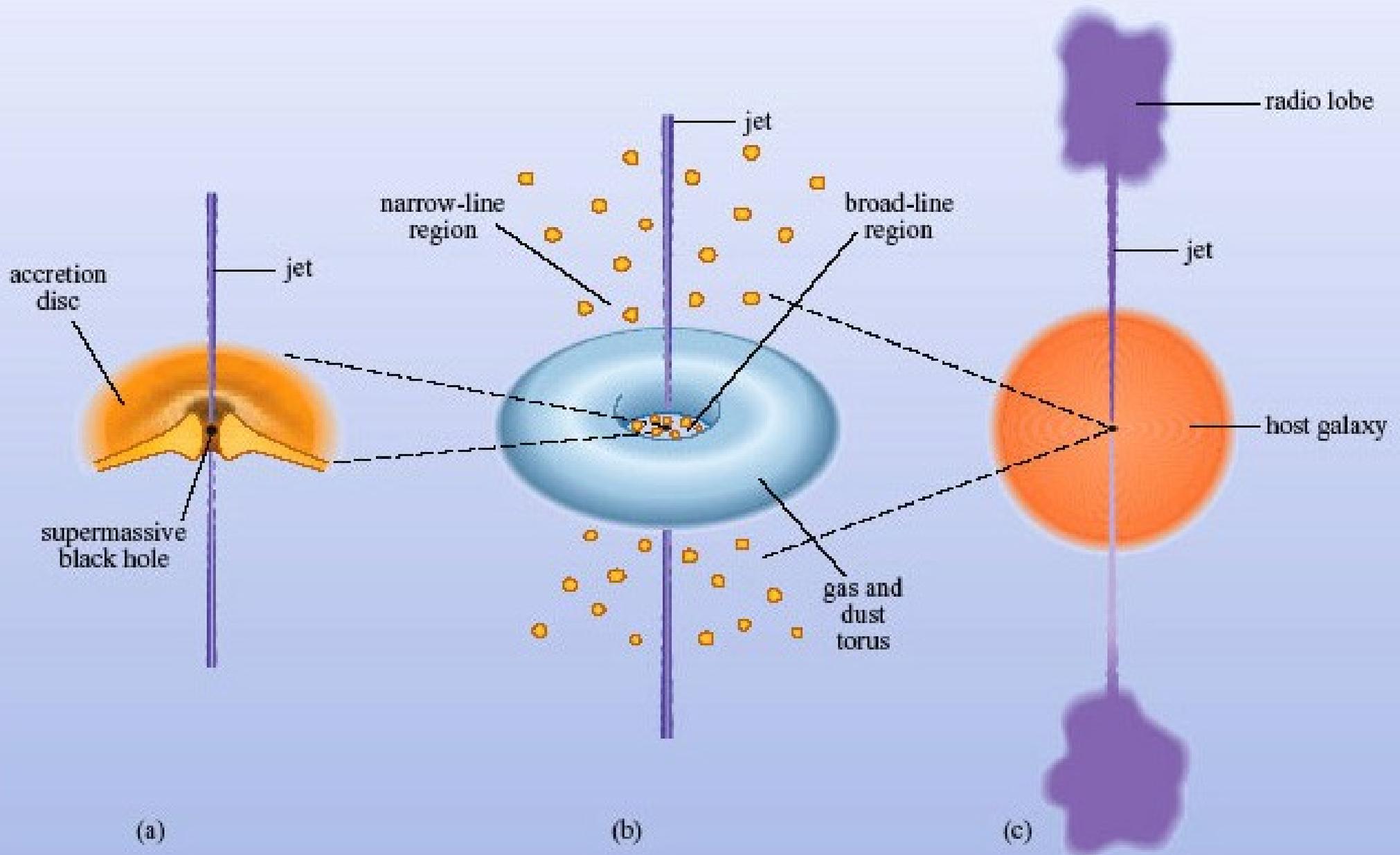


# Model AGJ

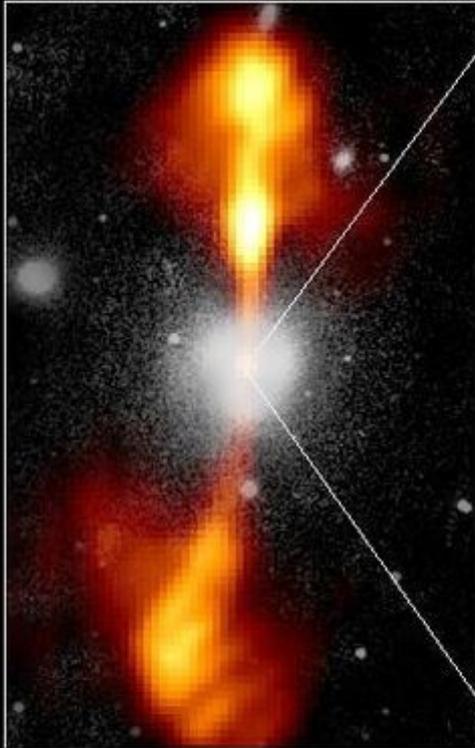


# torus

## Core of Galaxy NGC 4261

Hubble Space Telescope  
Wide Field / Planetary Camera

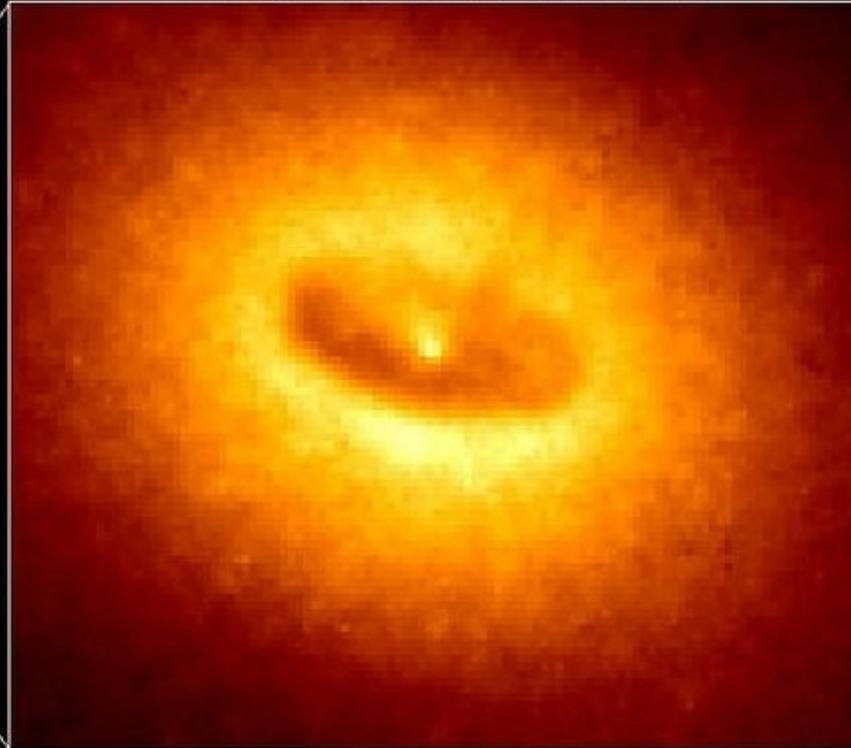
Ground-Based Optical/Radio Image



380 Arc Seconds  
88,000 LIGHT-YEARS

=27000 pc

HST Image of a Gas and Dust Disk

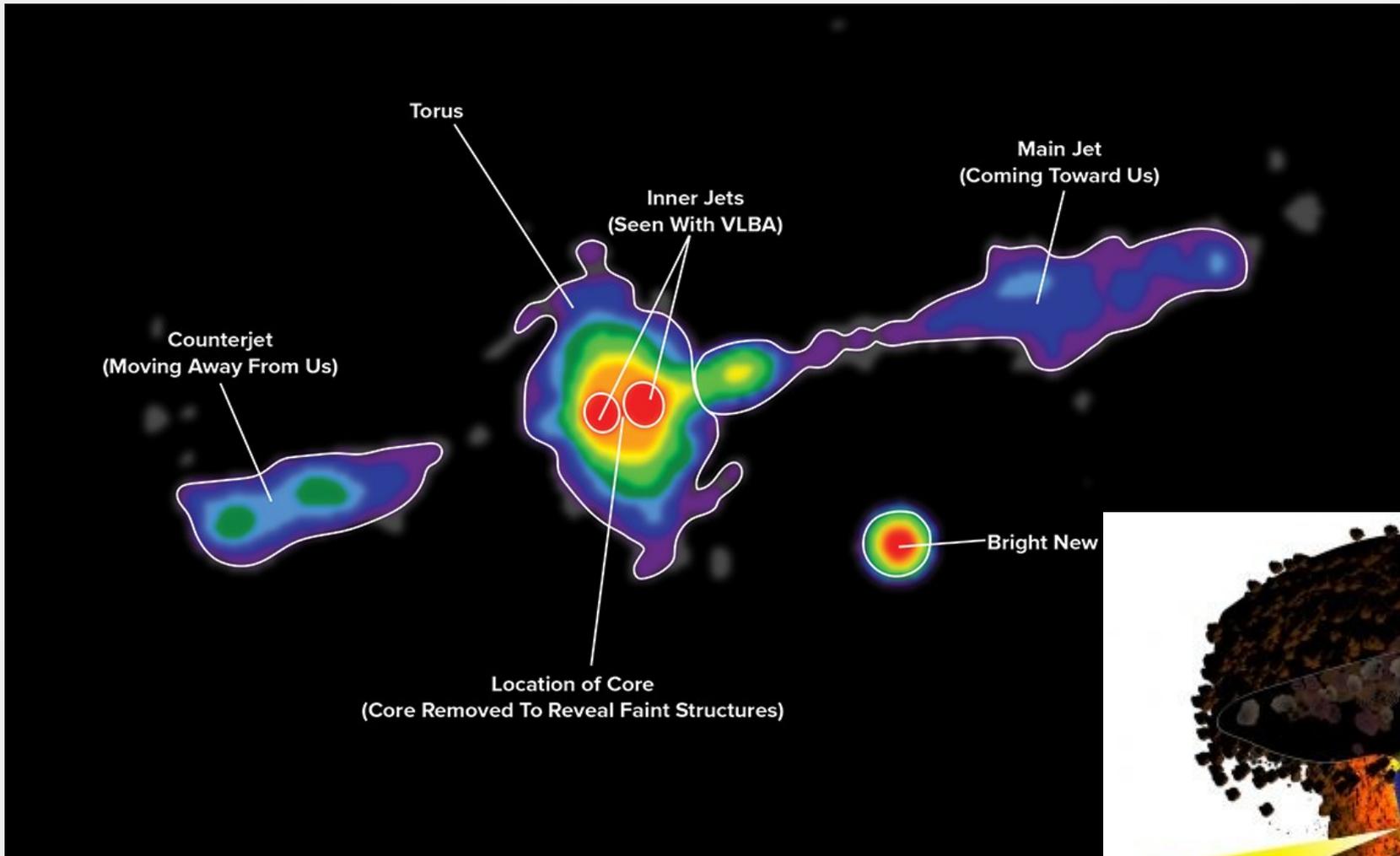


17 Arc Seconds  
400 LIGHT-YEARS

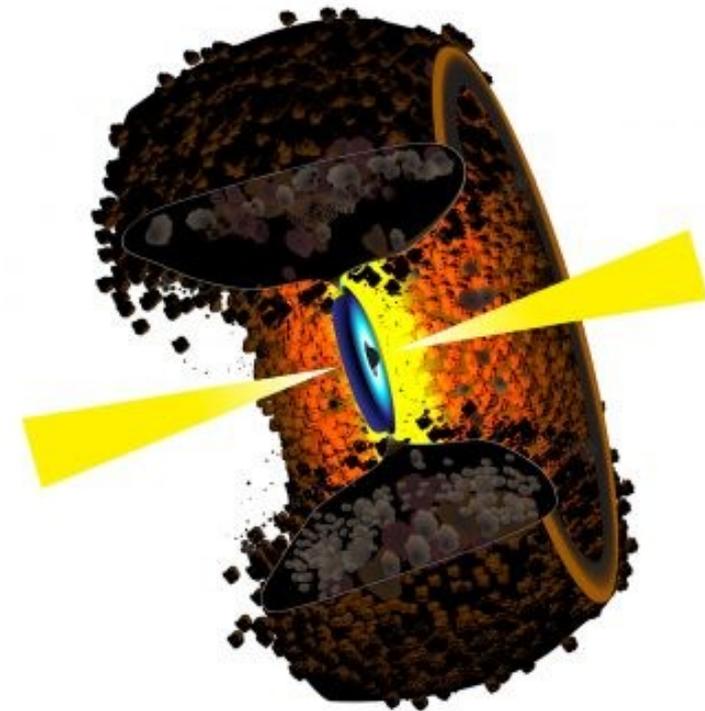
=122 pc

NGC 4261

# Torus



VLA posnetek osrednjega dela Laboda A  
(Carilli et al., Nrao/Aui/Nsf)



Desno: Bill Saxton, Nrao / Aui / Nsf

## Torus iz plina in prahu

- $T < 2000\text{K}$  (zaradi prahu!)
- velik izsevek IR (prisotnost prahu)

$L$  (iz središča)

$$j(r) = \frac{L}{4\pi r^2}$$

$$S = \pi a^2$$

delec prahu  
absorbira energijo

izsevana energija

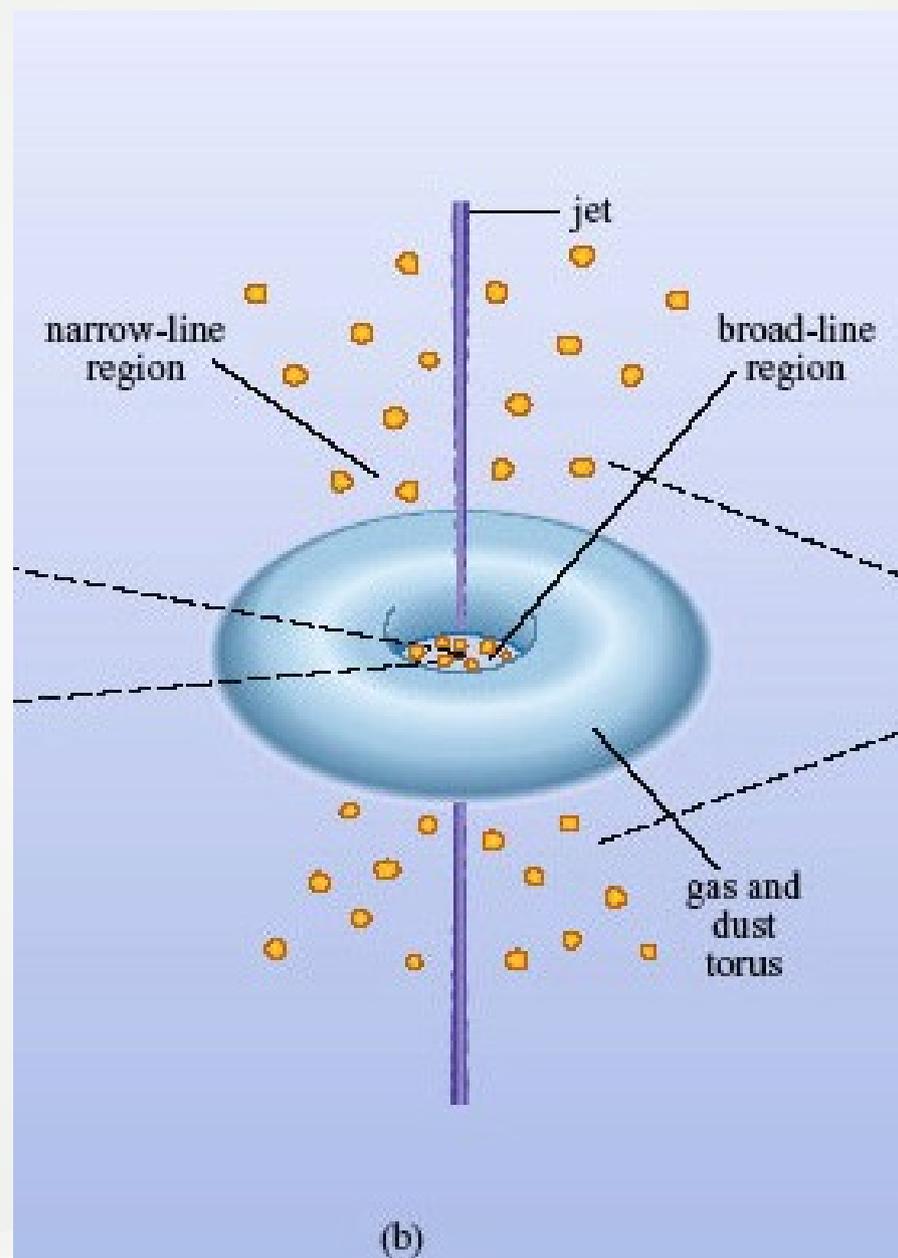
$$\frac{L}{4\pi r^2} \cdot \pi a^2 = 4\pi a^2 \sigma T^4$$

$$r = \left( \frac{L}{16\pi \sigma T^4} \right)^{1/2}$$

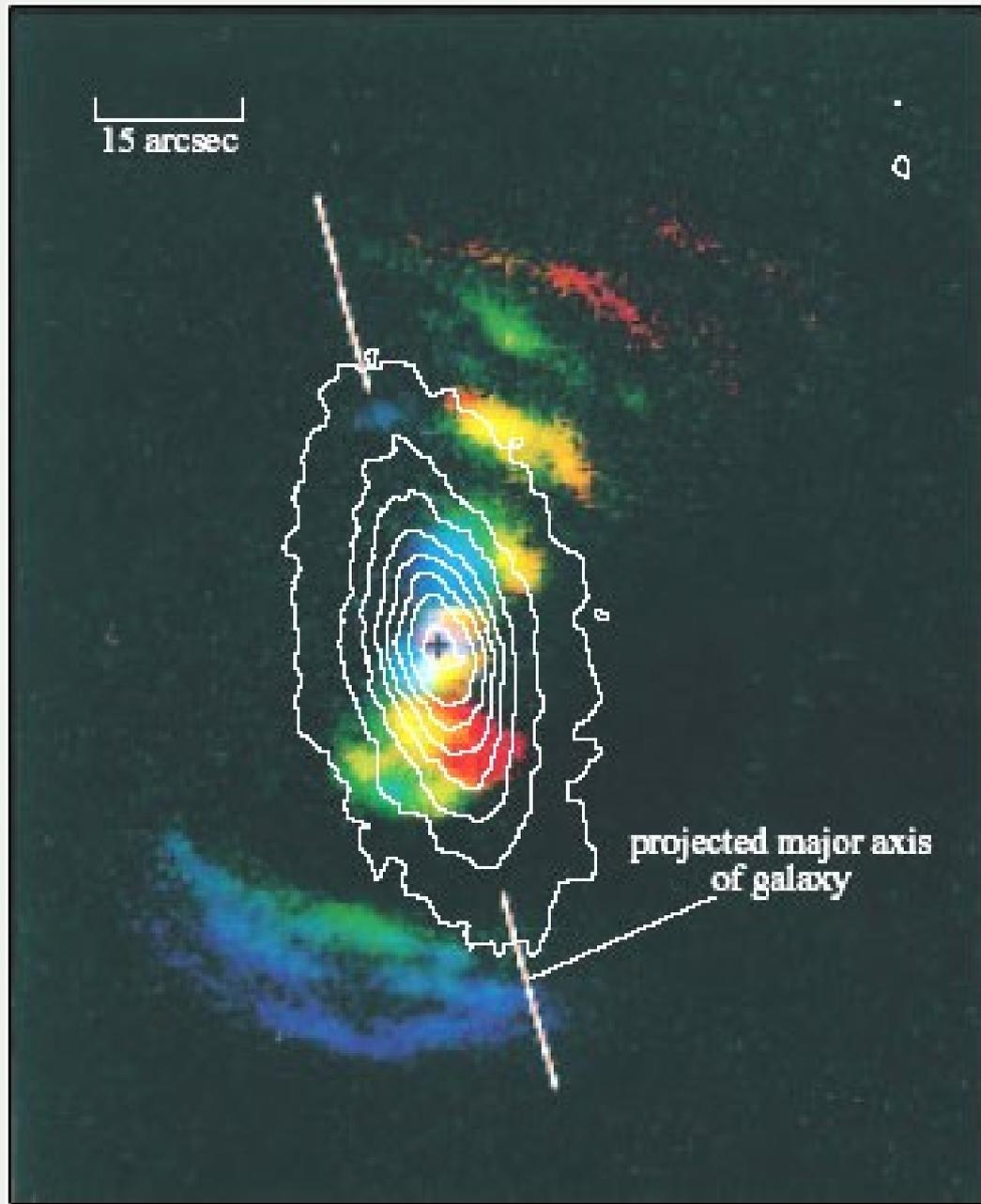
sublimacijski  
radij (prah)

$$r \sim 0,2\text{pc}$$

# BL in NL območja

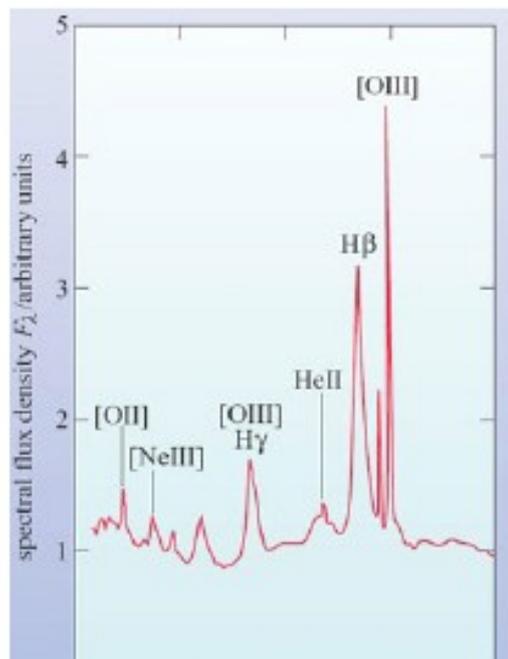


# BL in NL območja



NGC 5252  
Seyfertova galaksija, tip 2

## Območja širokih in ozkih črt (BLR) (NLR)



BLR (broad-line region)

$$r_{\text{BLR}} \cong 10^{15} \text{ m}$$

$$v \cong 5000 \text{ km/s}$$

$$T \sim 10^4 \text{ K}$$

$$\text{ocena} \Rightarrow N \sim 10^{10}$$

$$M_{\text{BLR}} (\text{skupna}) < 10 M_{\odot}$$

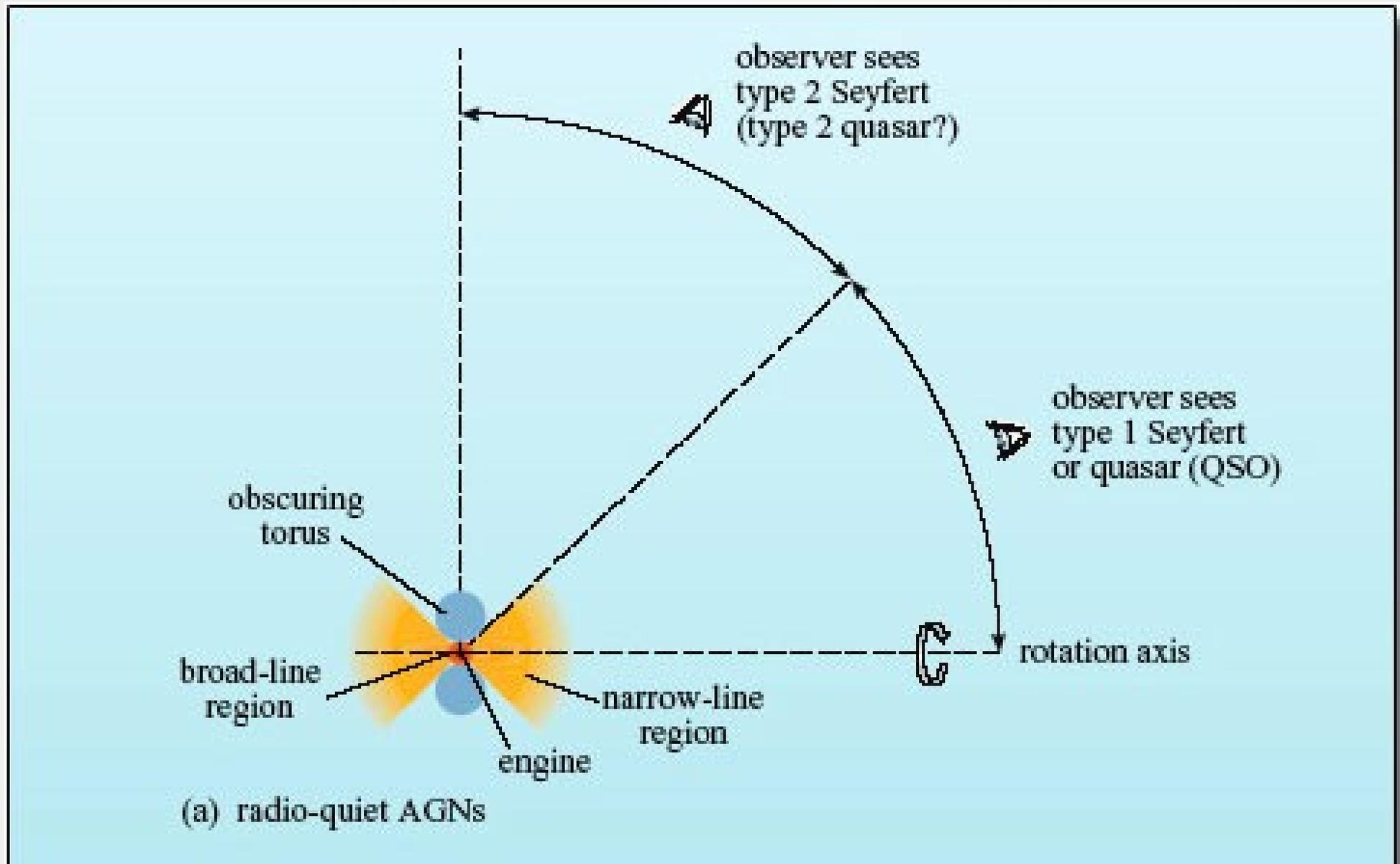
NLR (narrow-line)

$$v \sim 200-300 \text{ km/s}$$

extended narrow  
line region

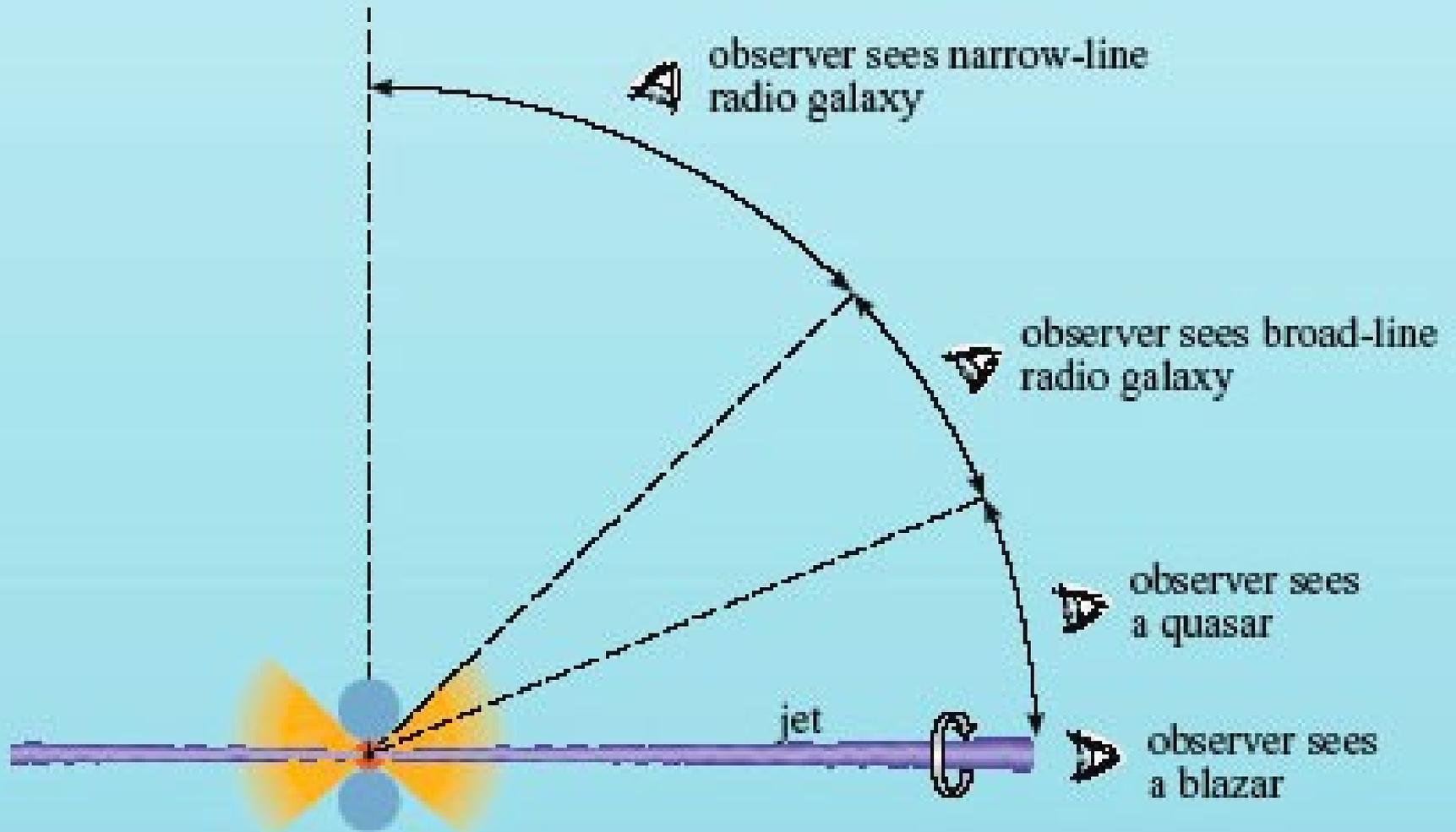
# Enotni model za AGJ

radijsko šibka aktivna galaktična jedra

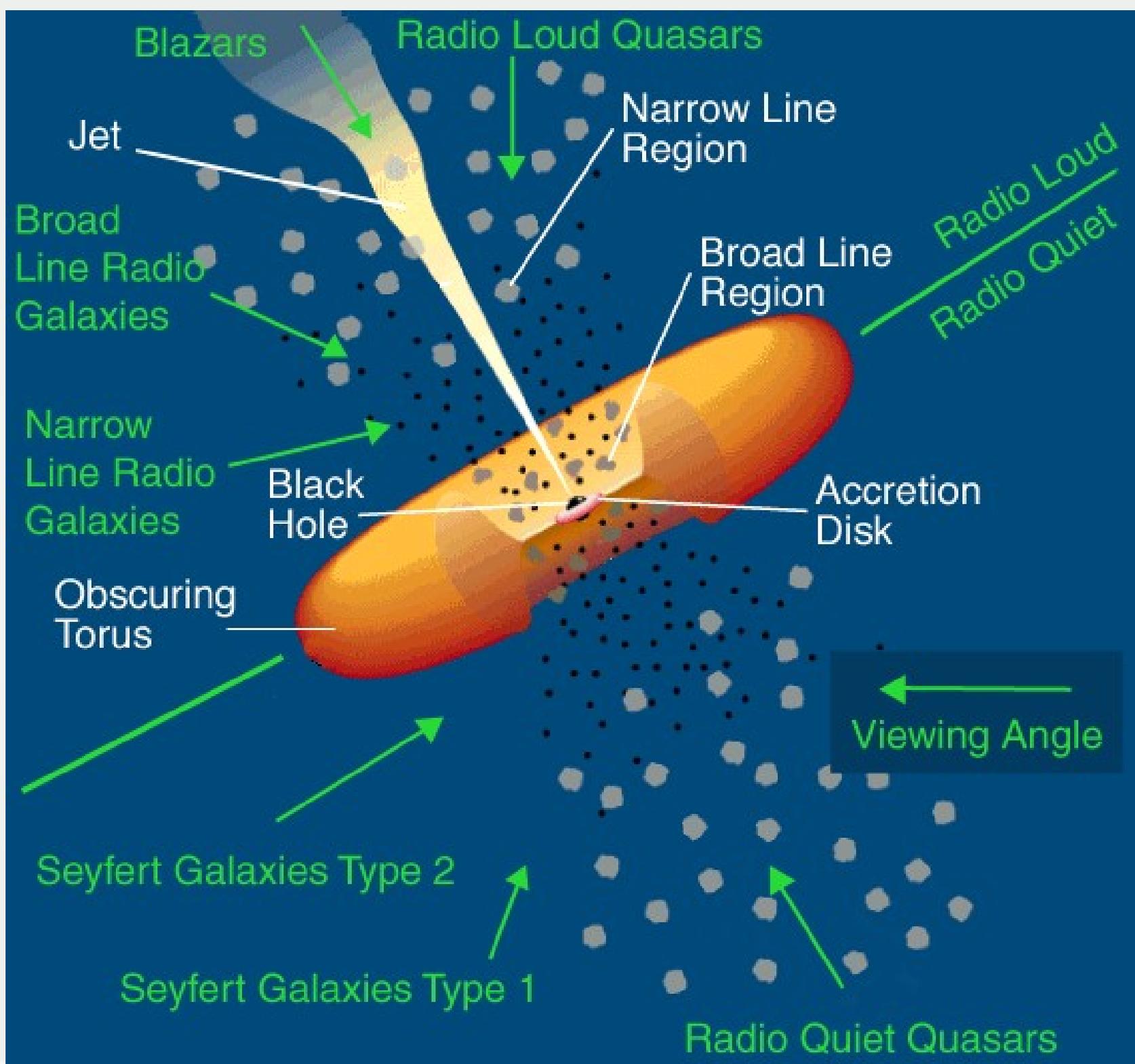


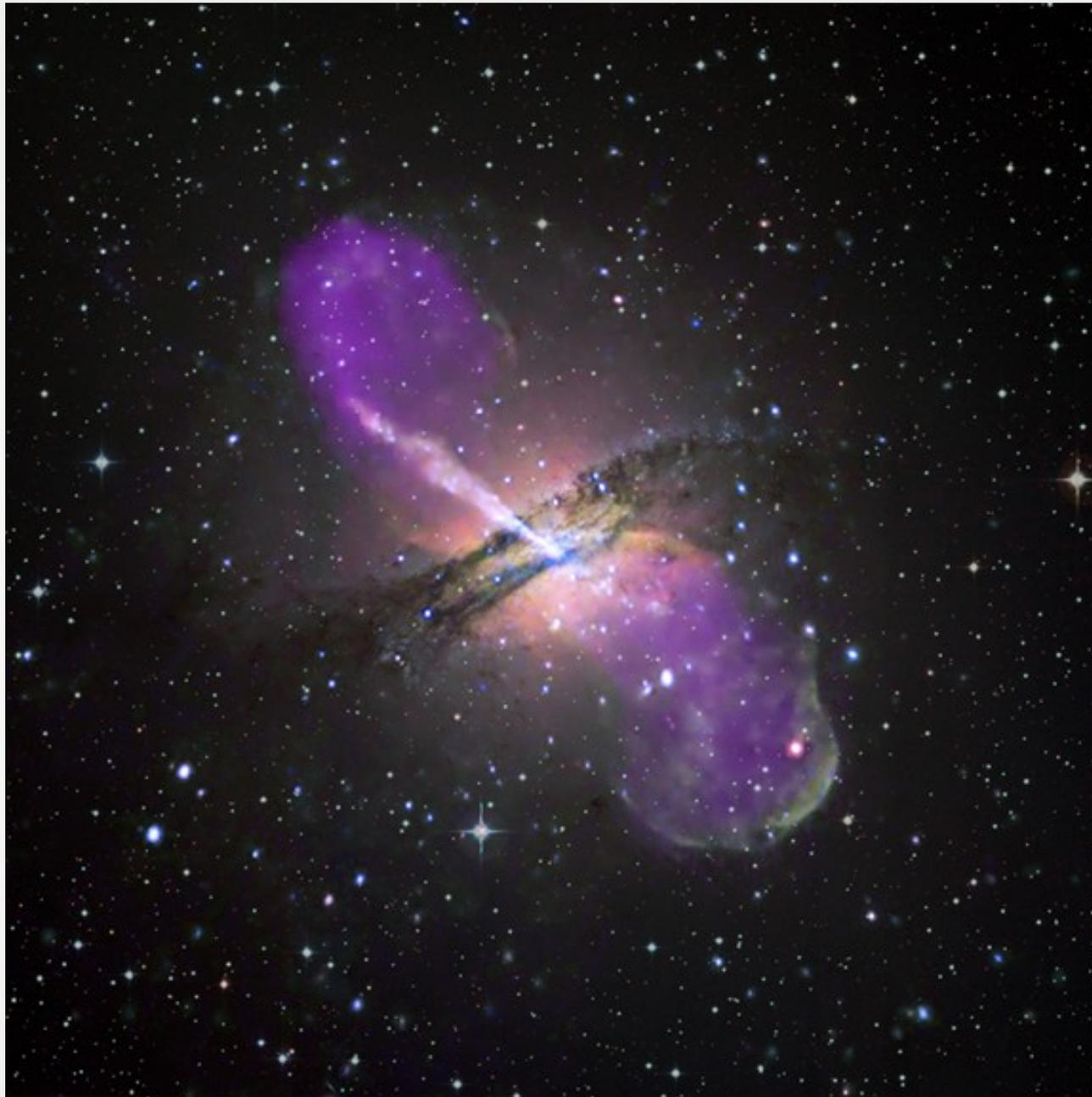
# Enotni model za AGJ

radijsko močna aktivna galaktična jedra



(b) radio-loud AGNs





**Galaksija Kentaver A (NGC 5128)**

Avtorstvo posnetkov: **X-ray:** NASA/CXC/CfA/R.Kraft et al;

**Radio:** NSF/VLA/Univ.Hertfordshire/M.Hardcastle; **Optical:** ESO/WFI/M.Rejkuba et al.