AGN feedback in young and old radio galaxies

Star-formation efficiency



Radio galaxies show low efficiency

Cold molecular gas is needed to form stars

AGN feedback prevents its collapse

Only one (?) radio galaxy shows feedback in the cold molecular gas.

~2 kpc 10^5 yr

3C 236

Active star forming regions. Recent (re-)ignition of the AGN. Fastest outflow (HI) in a radio galaxy

~4.5 Mpc 10^8 yr



3

2.5

2

1.5

з

2.5

2

1.5

-1





It could quench star formation.





Interacting companion

Molecular gas disk. Associated to dust up to >= 15 kpc Up to companion?

YSPs associated to the CO and dust disk Disk is warped and tilted No cold H_2 outflow

Update HI maps

For the coffee break

Star-formation efficiency of radio galaxies??

GPS/CSS: Positive/negative feedback?