

Gas trapping in extremely massive clusters in NGC 1365

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Abstract. Three radio cm sources in the central star-forming kpc of the closeby barred Seyfert galaxy NGC 1365 are observed. The complete dataset includes *VLT* infrared *J*, *K*, *L* and *N* images and spectra. The main observed features include (i) a rising dust continuum towards the mid-infrared (MIR), (ii) bright H emission lines and PAH (polycyclic aromatic hydrocarbon) features, (iii) a bright MIR [NeII] line, and (iv) no detection of MIR [SIV] or [ArIII] lines. For a typical cluster star-formation history and initial mass function, the [ArIII]/[NeII] and [SIV]/[NeII] ratios exhibit an abrupt decrease of several orders of magnitude at an age of ~ 7 Myr. The nondetection of [ArIII] and [SIV] indicates that the clusters are of approximately this age.

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The full poster (in pdf format) is available at
<http://www.astro.iag.usp.br/~iaus266/Posters/pGalliano.pdf>.