



# Tidal Dwarfs in Mergers of Disk Galaxies

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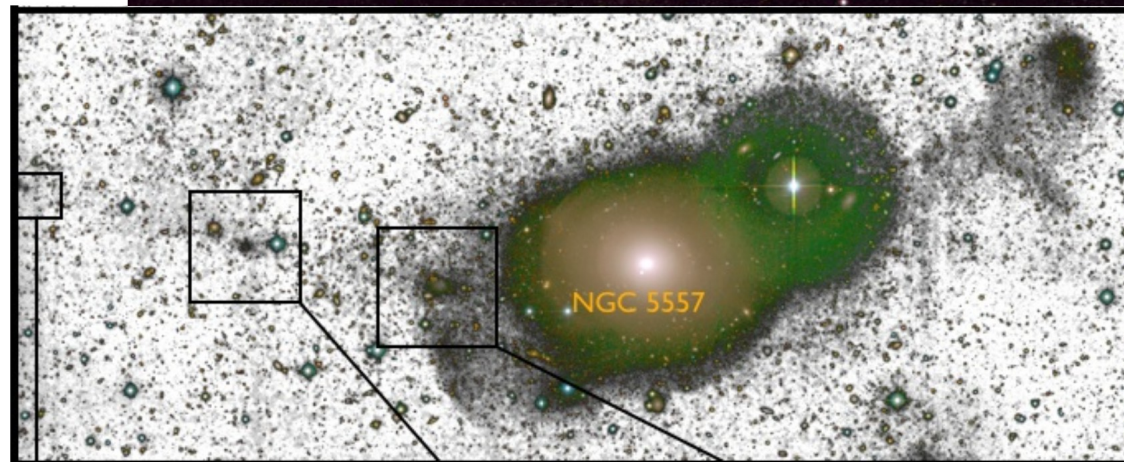
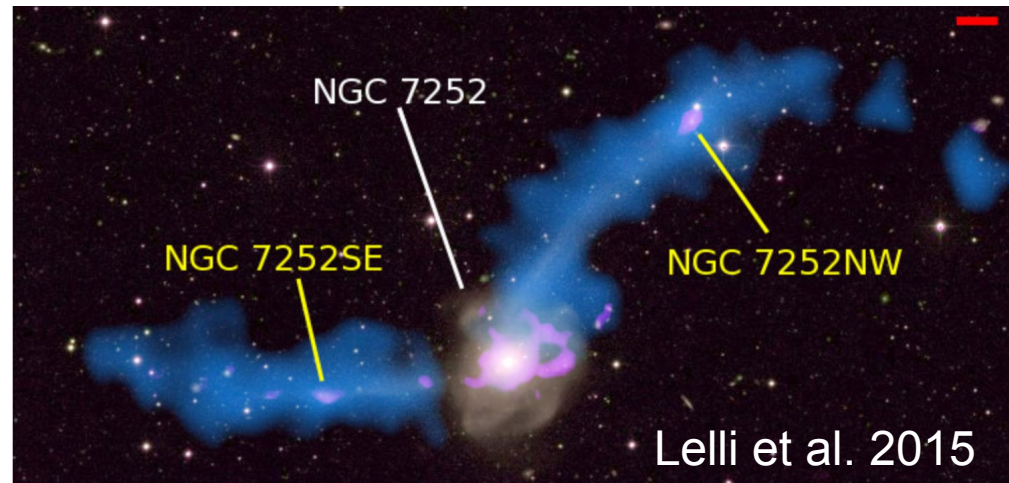


# Tidal dwarfs in the LCDM-cosmology

Tidal dwarfs (TD) may contribute to the observed abundance of dwarf galaxies

(Young) TDs identified from observations by their distinct properties:

- Metallicity (deviation from luminosity-metallicity relation)
- Low DM content
- Other tidal features (indication of galactic encounters / mergers)





# Simulations probe the formation of TDs

Observationally motivated initial conditions run with an updated TreeSPH code GADGET-3: star formation, metal-dependent cooling of gas, feedback from supernovae, AGB stars and BHs, updated SPH

- Questions to study:
  - Formation efficiency of TDs => fraction of TDs within dwarf galaxies, galaxy mass function
  - Survivability of DM-poor TDs (tidal disruption, stellar feedback from starbursts)
  - TD formation at higher redshifts





Same initial conditions, different astrophysical models: strong feedback may erase structure on small scales, star formation must be calibrated and results compared to other hydro codes

New SF and FB models

Old SF with self-regulation

