

New candidate supernova remnants in nearby galaxies

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Team members

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Previous studies of our group

In Northern Hemisphere:

NGC 2403, NGC 3077, NGC 4214,
NGC 4395, NGC 4449, NGC 5204

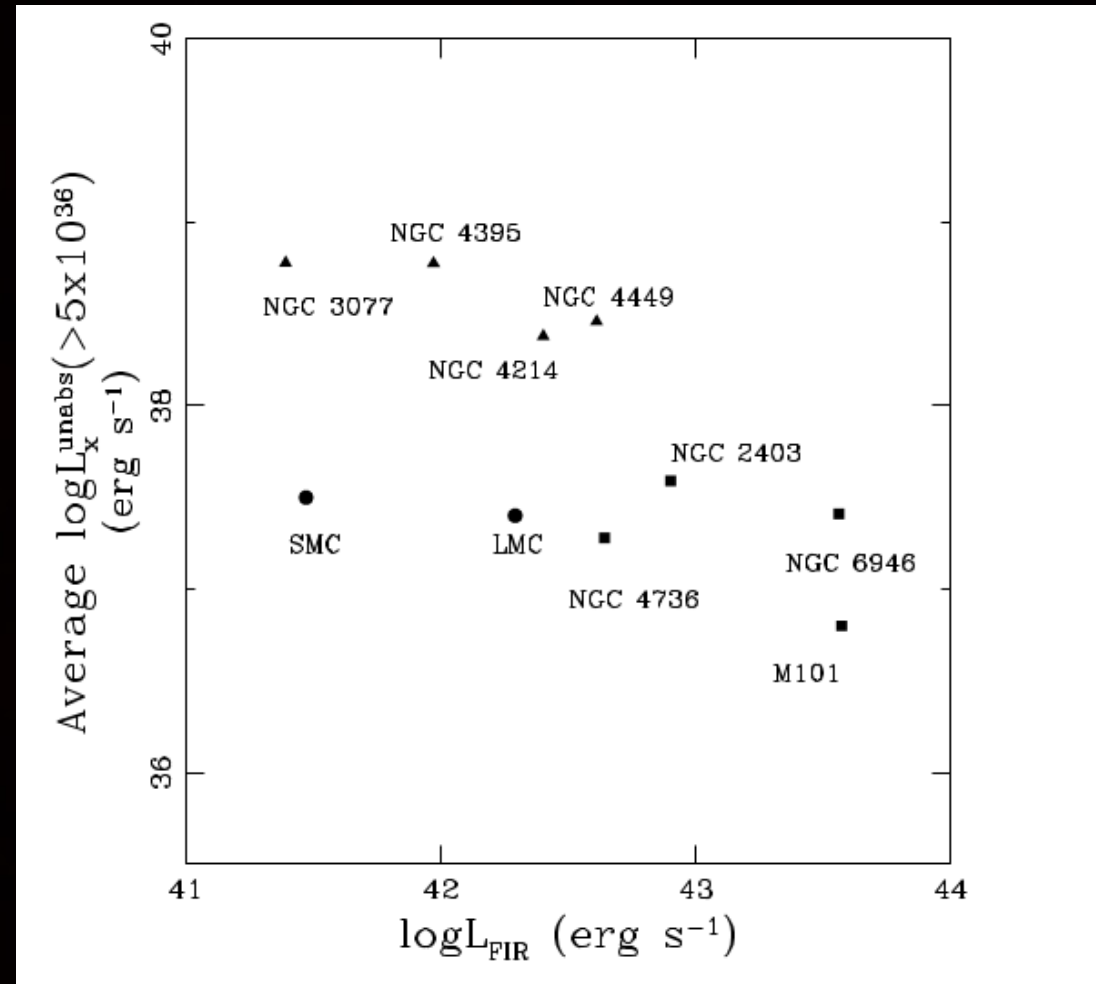
In X-rays: 37 detected SNRs

(Leonidaki et al. 2010)

In the optical: 67 spectroscopically confirmed SNRs (out of 95 photometrically detected SNRs. 165 SNRs are going to be studied) (Leonidaki et al. 2013)

In Southern Hemisphere:

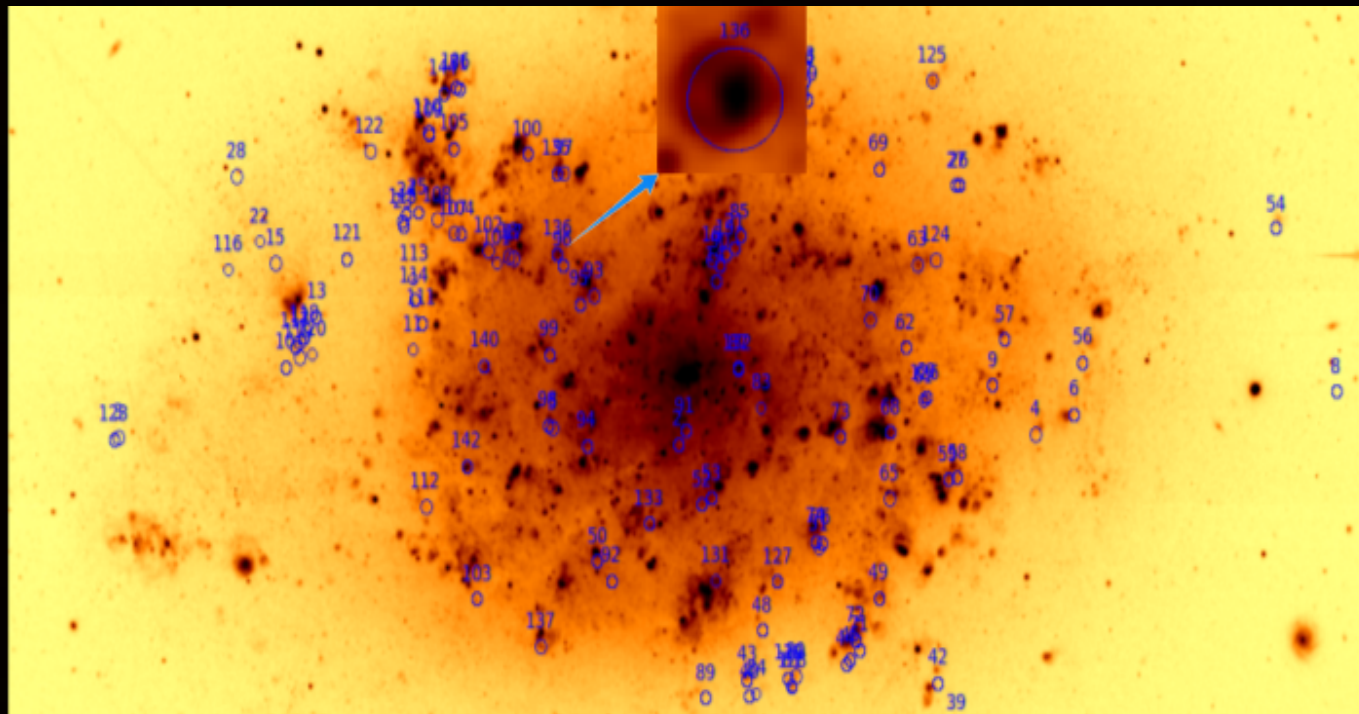
NGC 45, NGC 55, NGC 1313,
NGC 1672, NGC 7793



New candidate supernova remnants

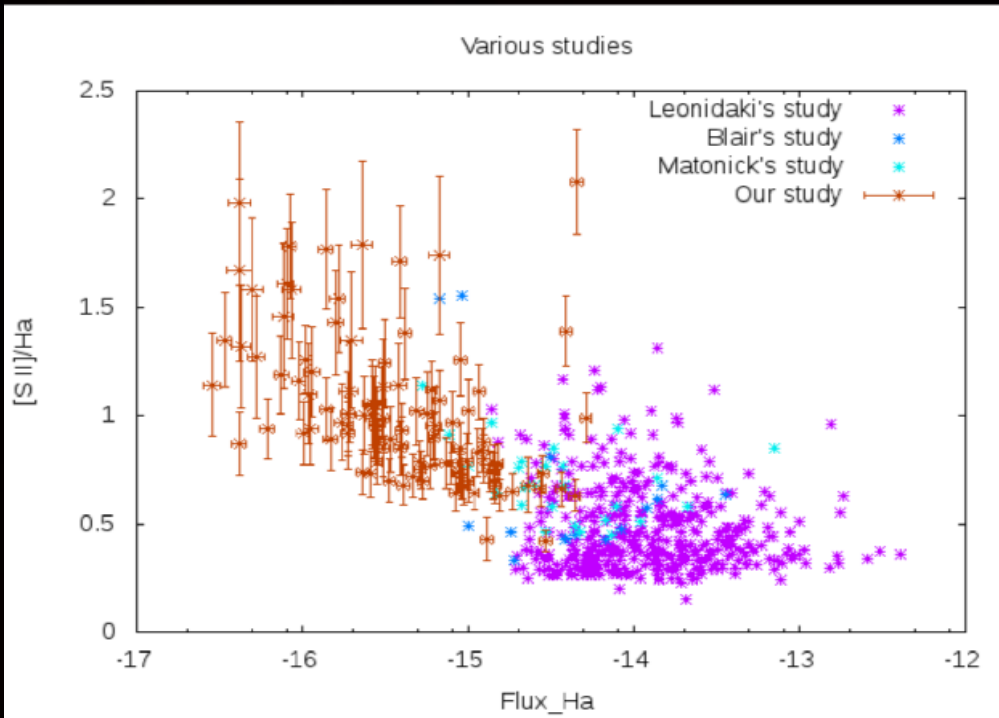
The number of new candidate SNRs in our sample of galaxies

Galaxies	NGC 45	NGC 55	NGC 1313	NGC 1672	NGC 7793
Candidate SNRs	207	143	127	4	162



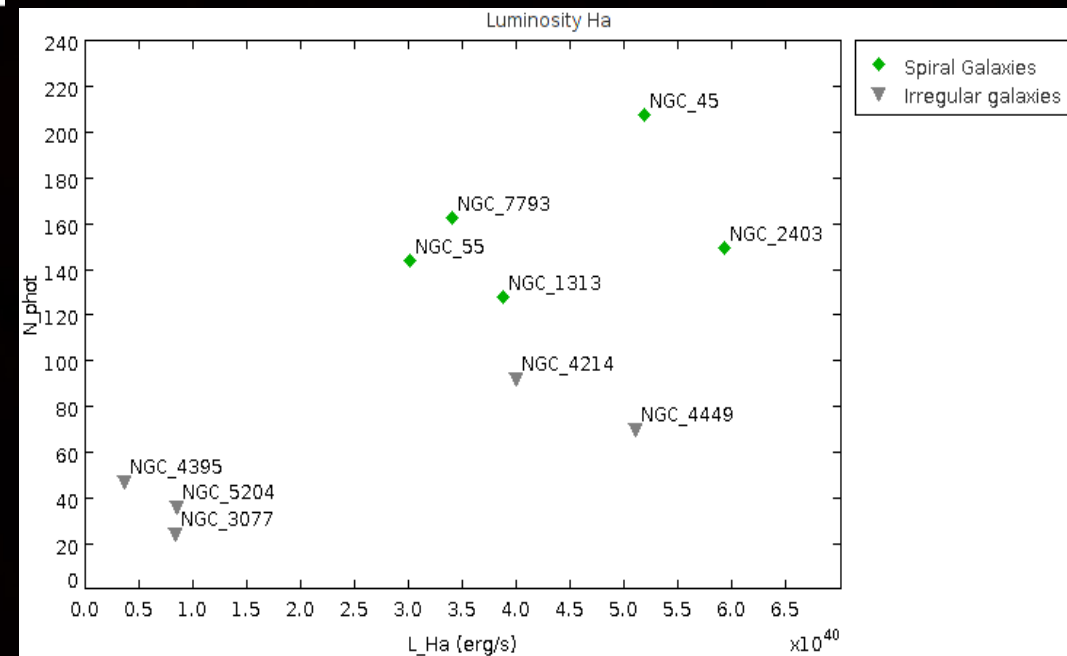
← Distribution of candidate SNRs in the galaxy NGC 7793.

Comparison with previous studies



← Comparison of our results for the galaxy NGC 7793 with previous studies (Blair, 1996, Matonick et al., 1997, Leonidaki, et al., 2013).

→ Number of photometric SNRs against the integrated H α luminosity (Kennicutt et al. 2008), in spiral and irregular (Leonidaki, et al. 2013) galaxies.



Future goals

- Verification of shock excited nature of SNRs spectroscopically.
- Study of interaction between SNR population and surrounding interstellar medium (ISM).
- Multi-wavelength study.