Low Frequency Radio Studies of Halos and Relics

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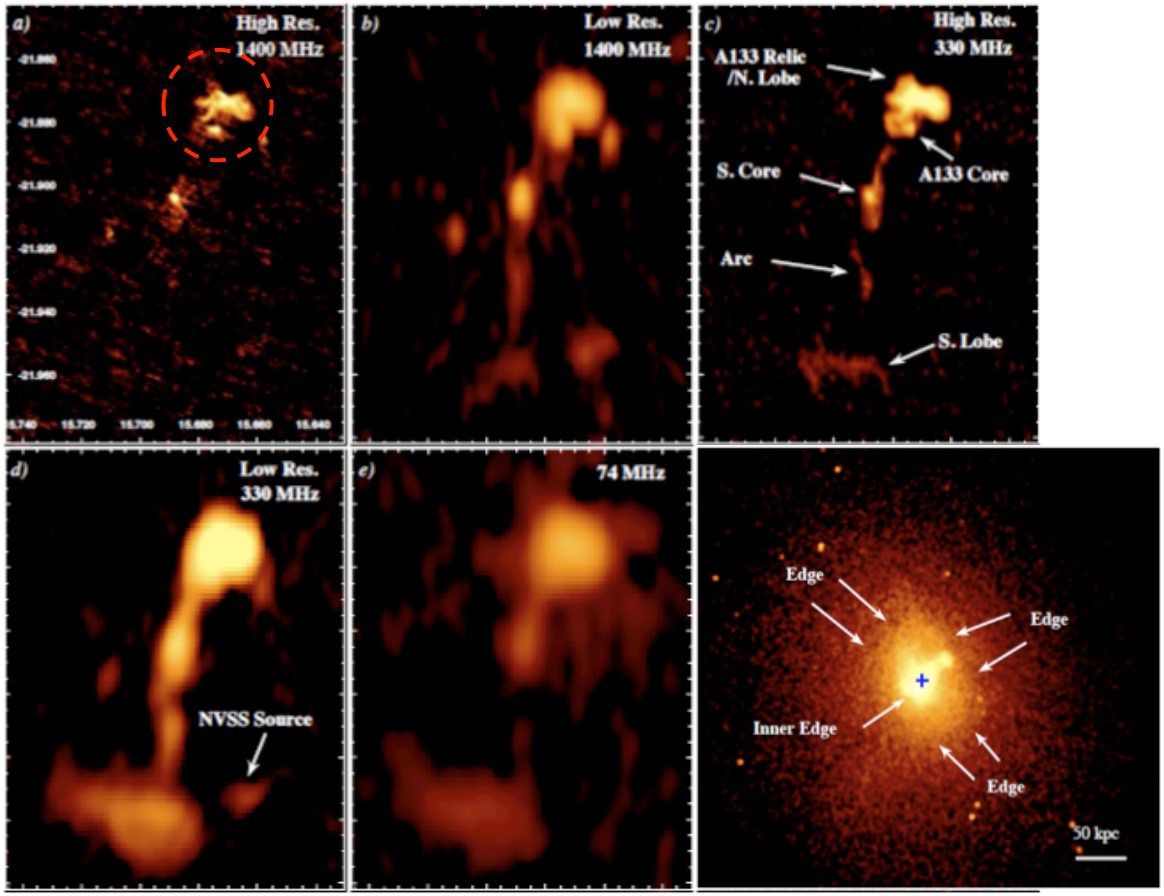
Abell 133

- Deep *Chandra* data detects edge consistent with sloshing cold front (merger)
- Spectral fitting ➔ wings are not shock but gas displacement
- Multi-frequency radio data reveal new large scale radio structure centered on a higher redshift (z=0.293) galaxy
- Northern 'lobe' of background source may overlap A133 relic



Randall et al., submitted

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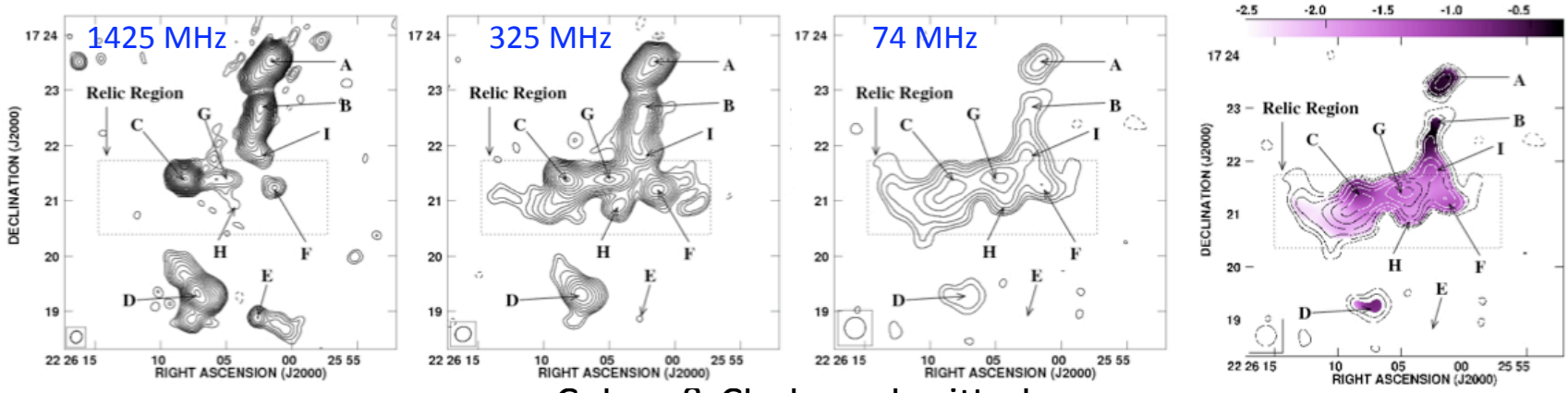
Abell 2443

- Multi-frequency radio data reveal several head-tail galaxies and a large region of diffuse ultra-steep spectrum emission ($\alpha_{1400}^{330} = -2.8, \alpha_{330}^{74} = -1.7$)
- Diffuse radio source is on edge of ROSAT cluster emission (relic)



Cohen & Clarke, submitted

Low Frequency Spectrum of Halos and Relics

- Re-reduction of 74 MHz VLSS in progress, ~40% source increase, 15% lower rms
- Sensitive to more extended emission cut out of original VLSS (scales > 17')
- Pilot study underway of all known halos and relics