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# Obscured AGNs in the SXDF

Chris Simpson (Liverpool John Moores)

Steve Rawlings (Oxford)

Alejo Martínez-Sansigre (MPIA-Heidelberg)

Masayuki Akiyama (Subaru Telescope, NAOJ)

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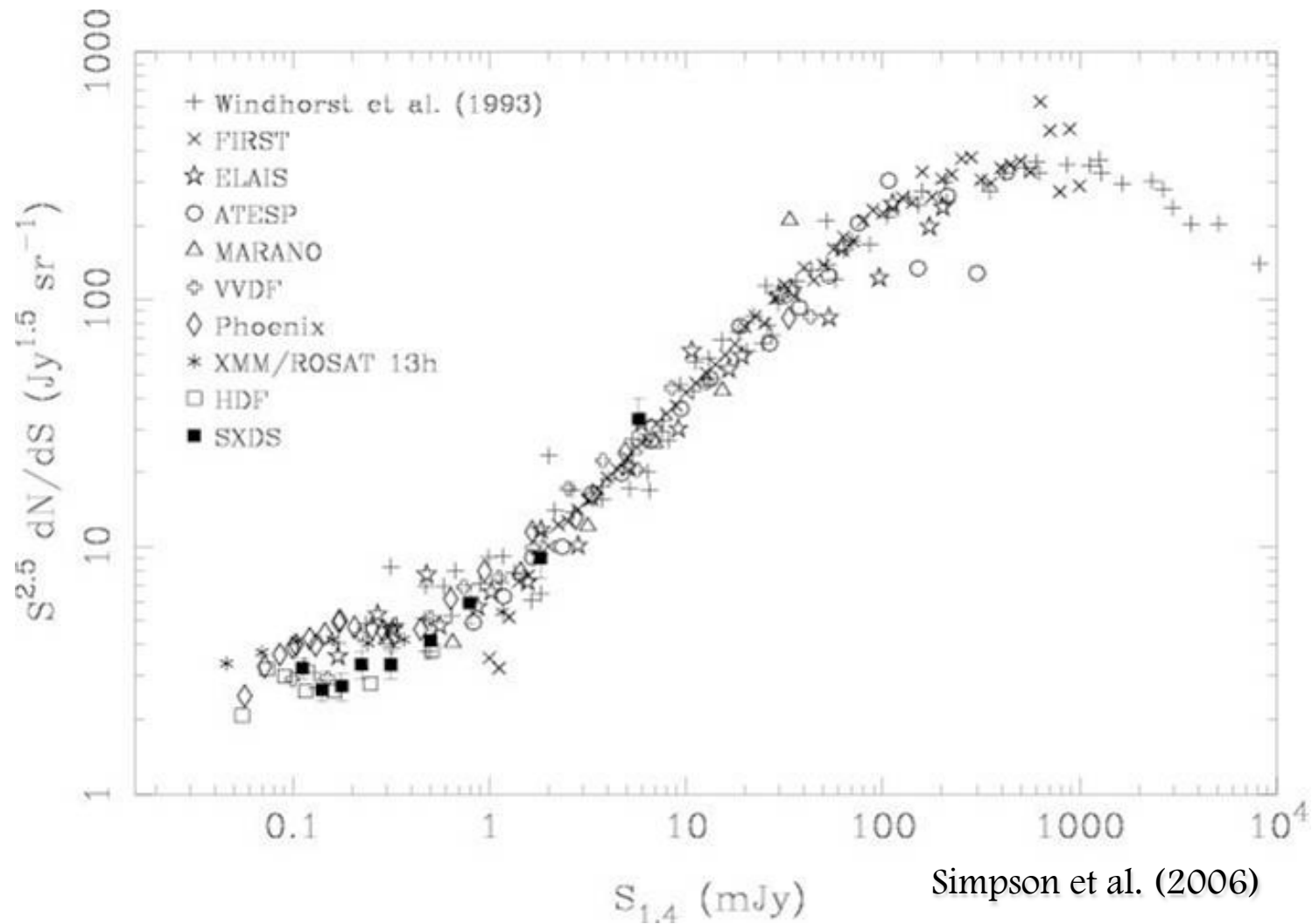
Chris Simpson (Liverpool John Moores)

Steve Rawlings (Oxford)

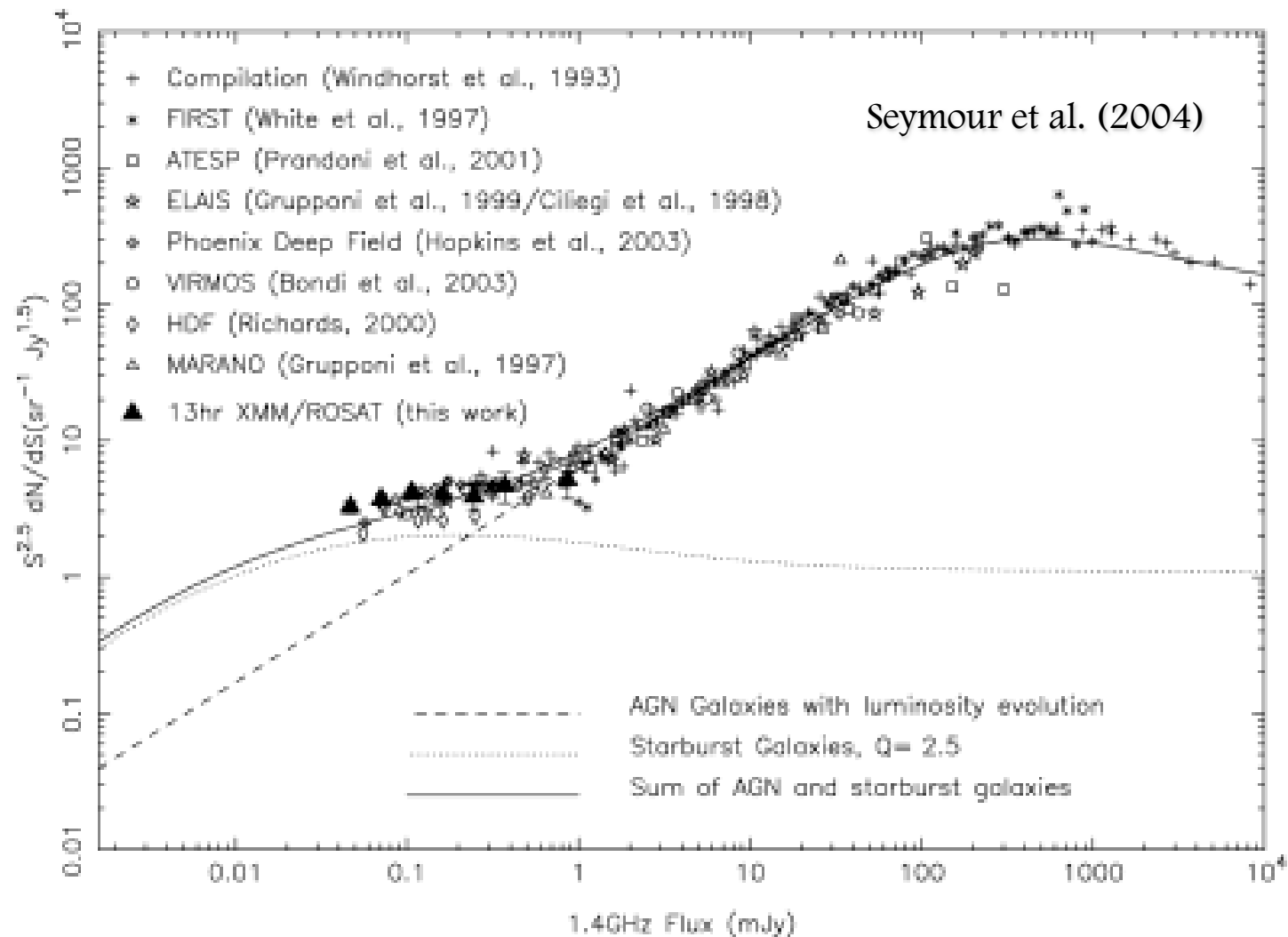
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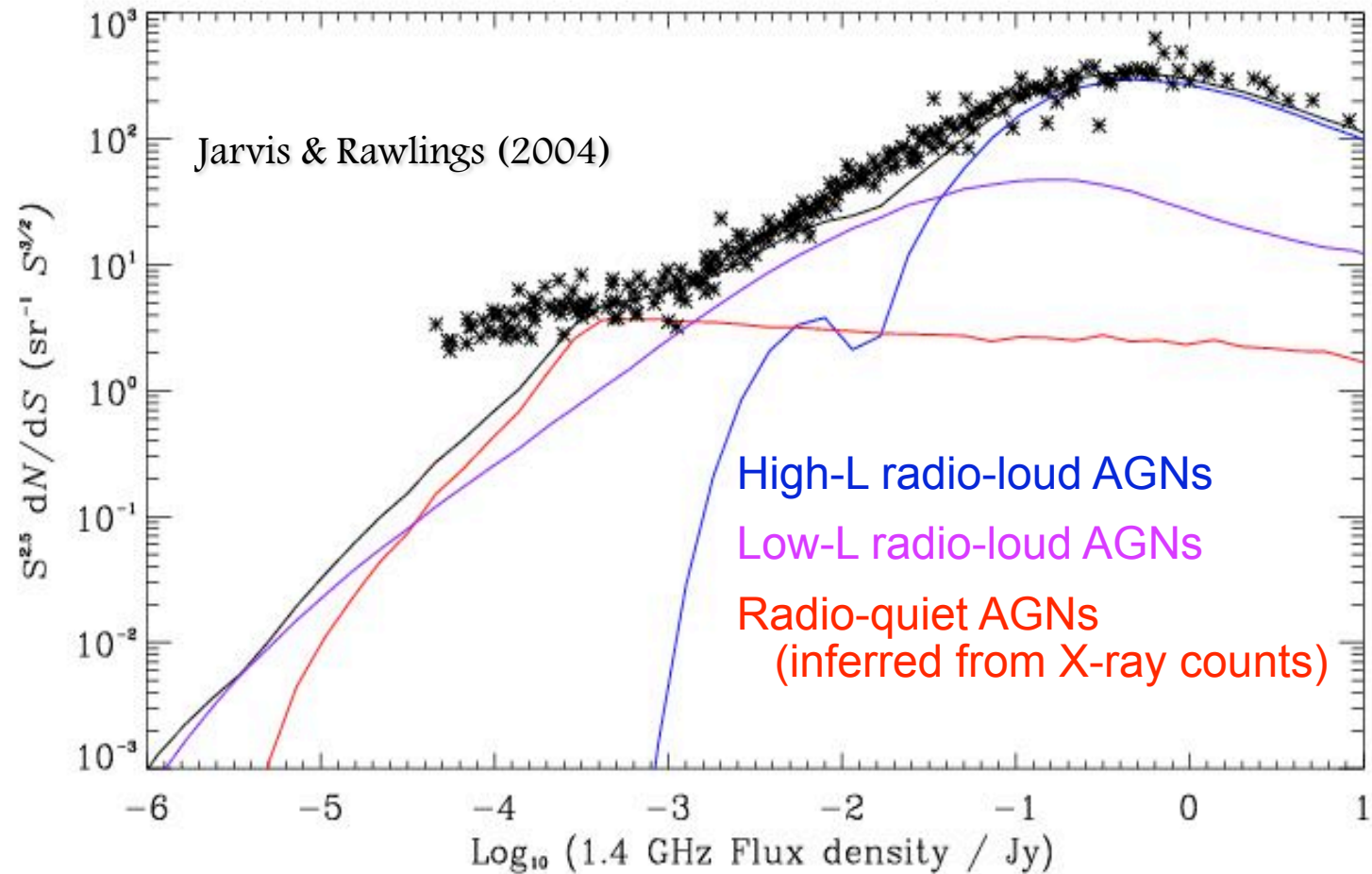
# Radio source counts



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# Radio-quiet AGNs at faint radio fluxes



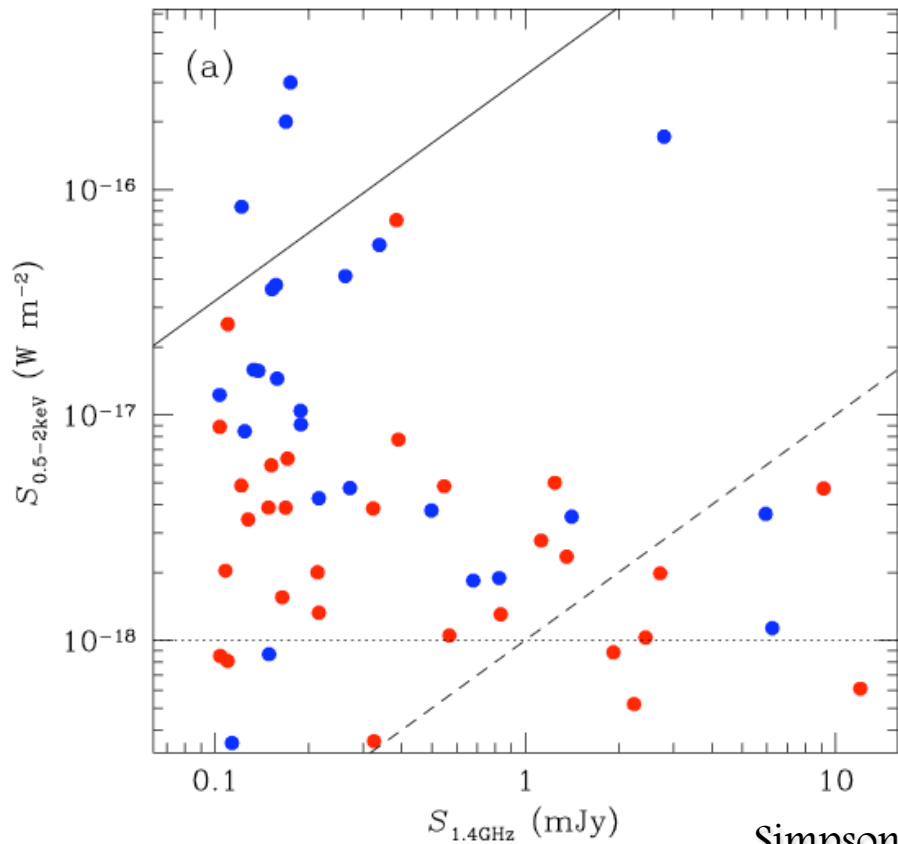
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# Subaru/*XMM-Newton* Deep Field

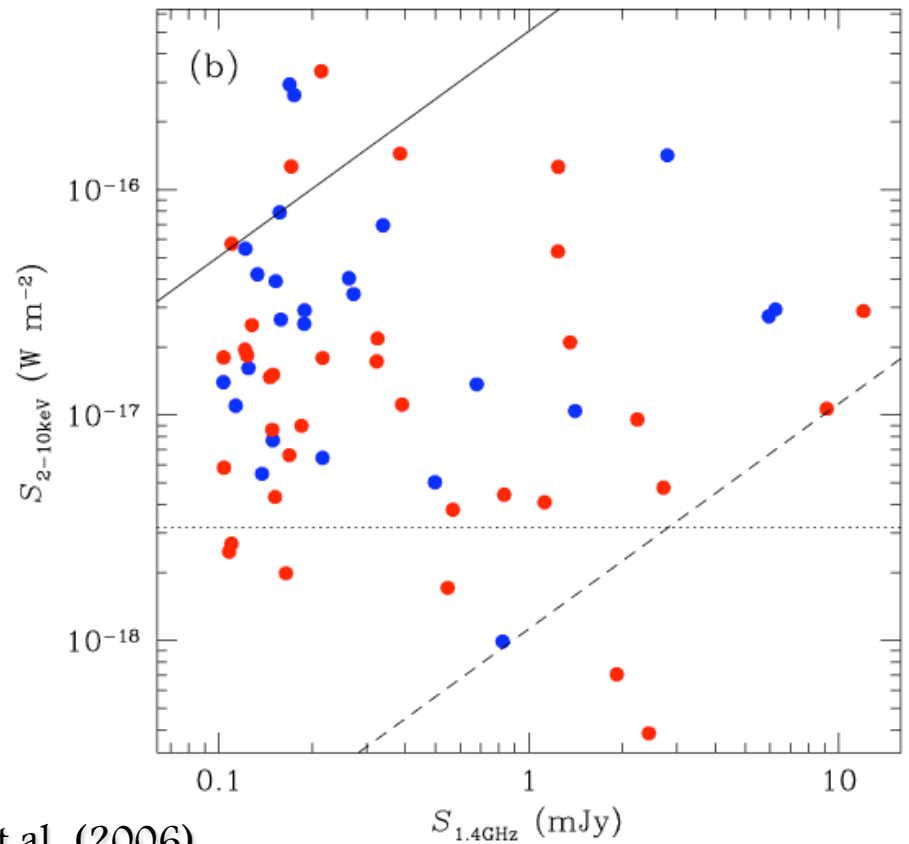
- Deep 1-square degree field
    - Deepest optical data (BVRi'z')
    - Deepest near-infrared data (JHK)
    - Deepest(?) *Spitzer* data (292 hours approved)
    - Deep multi-frequency radio data (VLA, GMRT)
    - Deep X-ray data (>50 ksec *XMM-Newton*)
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# Evidence for RQAGNs

- optical point sources (QSOs) and galaxies



Simpson et al. (2006)



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# Spectroscopic follow-up

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# Spectroscopic follow-up

- The Good

- 2dF: 4 nights DDT (3 clear): ~40 radio source redshifts
- FOCAS: occasional additions to slit masks: ~30 redshifts



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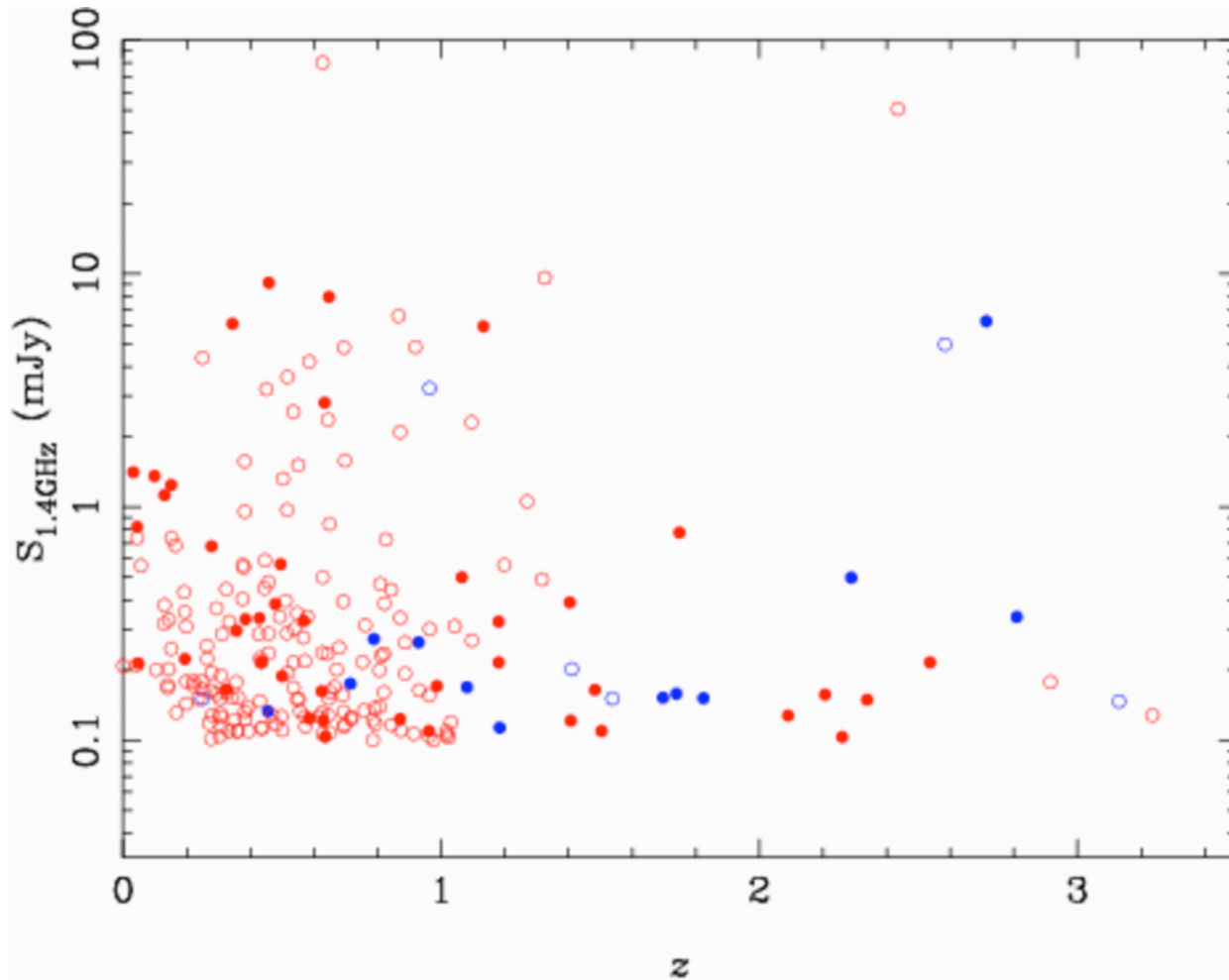
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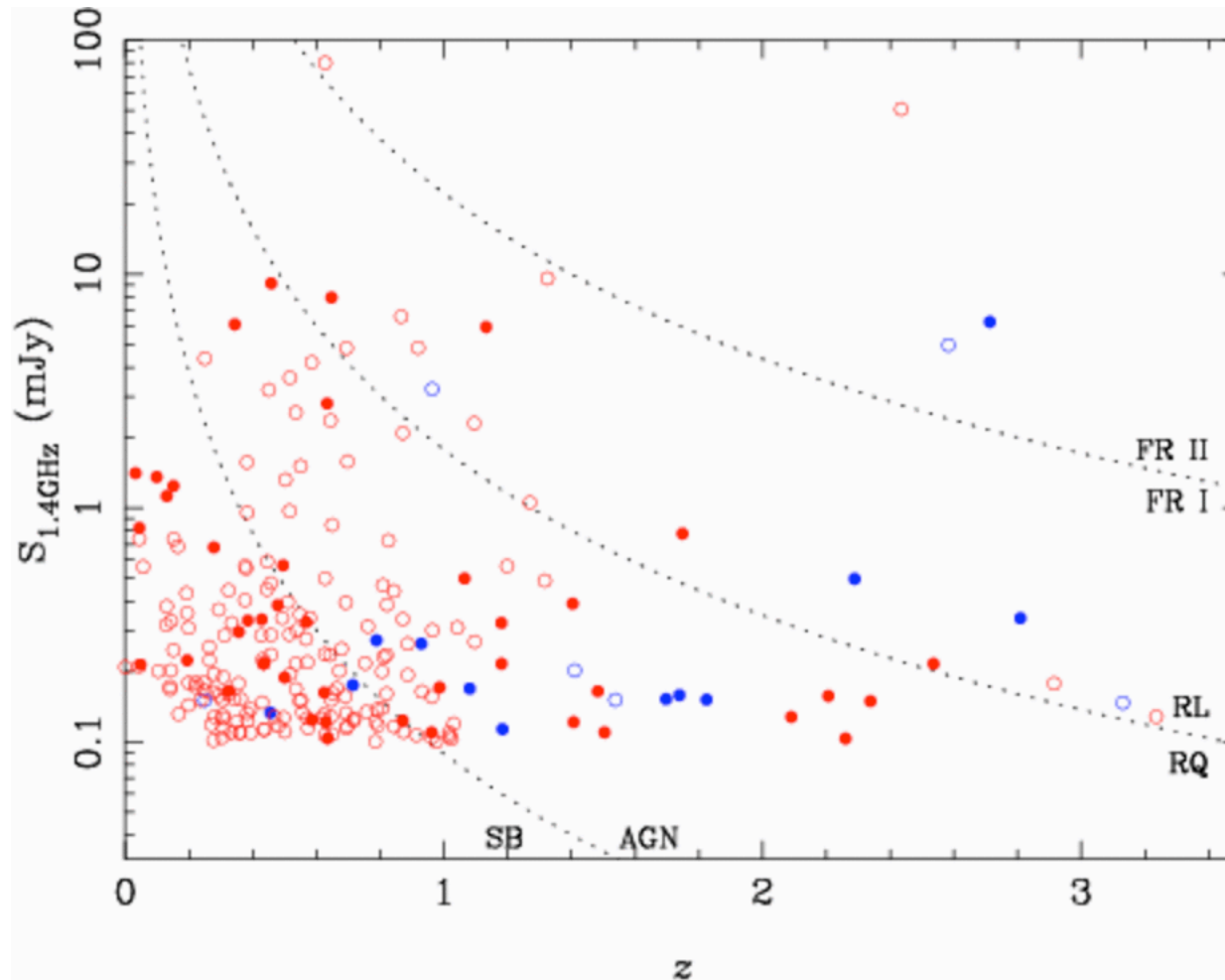
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46% spectroscopic completeness

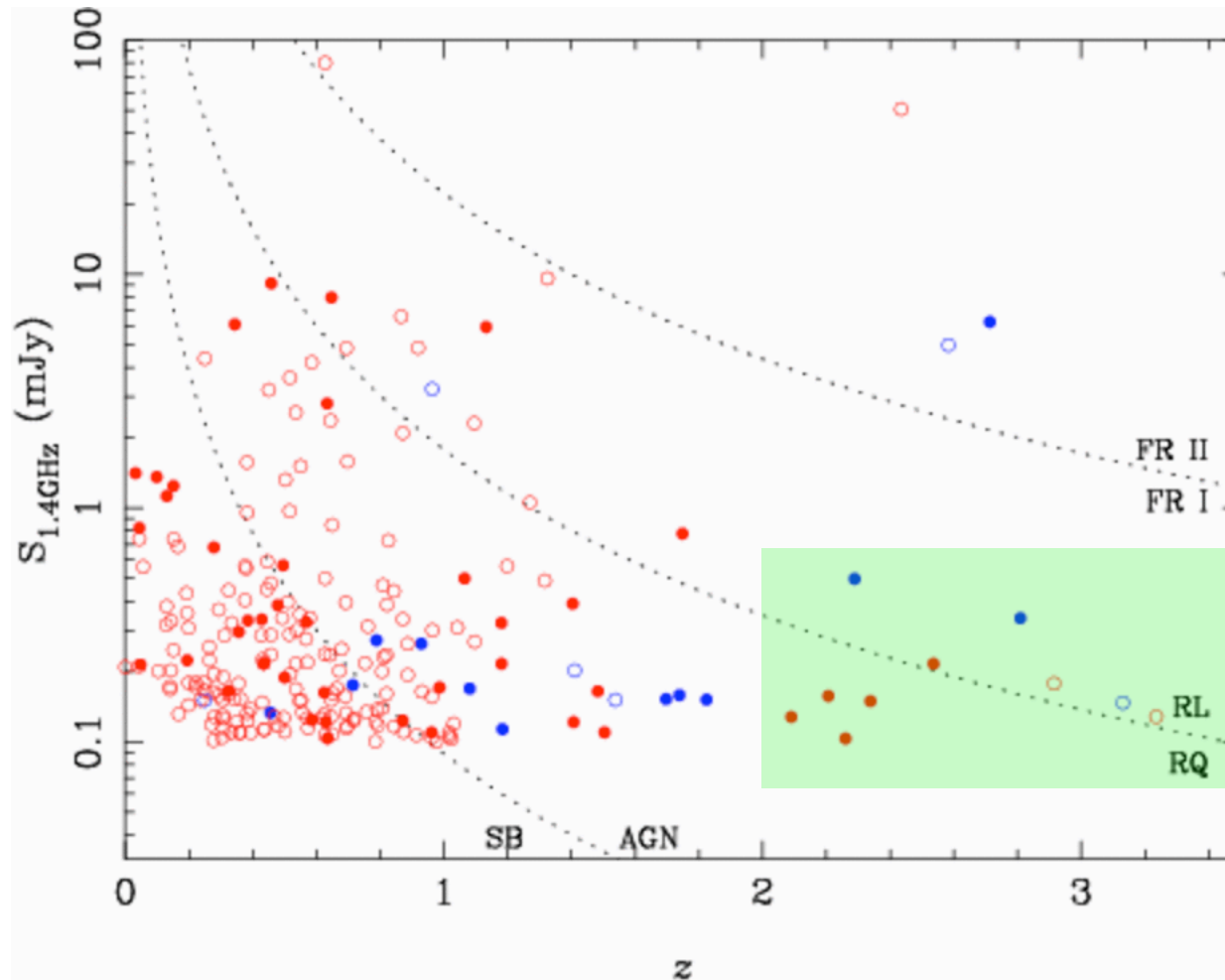
# Spectroscopic redshifts



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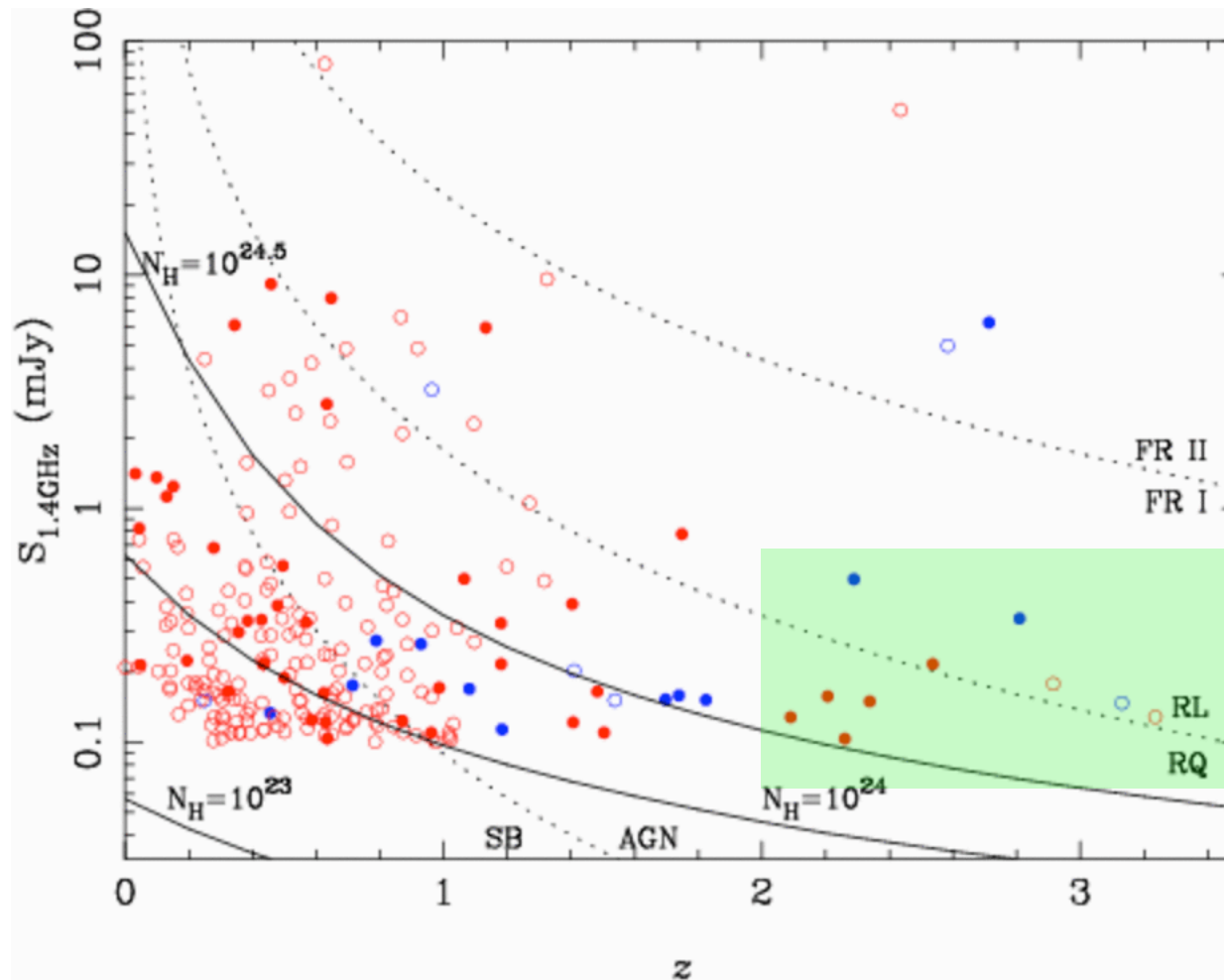


# Spectroscopic redshifts





# Spectroscopic redshifts



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# Future work

- Determine  $z_{\text{phot}}$  for objects with sufficient S/N
    - confirm some dubious redshifts
    - preferentially target objects likely to provide redshifts
  - Obtain spectra of remaining QSO candidates
  
  - Study radio properties of X-ray-selected AGNs
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