Plans for Ph.D.

Previous episode...

Pilot sample of 15 RL BALs ($S_{1.4}$>15 mJy)

- Quite compact, ~ 50 mas ~ 0.5 kpc
- Weak variability
- Convex-peaked spectra (some double-components)
- On average weakly polarised
- Same α distribution as non-BAL QSOs (orientation)
- Consistent with anticorrelation ν_{peak} vs LS

(Montenegro-Montes PhD thesis)

New sample of 30 RL BALs ($S_{1.4}$>30 mJy)

- Radio continuum & polarization (Effelsberg, VLA)
- Morphology & orientation (EVN, VLBA, global VLBI)
- Dust properties (IRAM, APEX, JCMT)
- H I absorption & CO lines: gas component in the central engine environment (GMRT, WSRT, IRAM)
- Infrared band: International Time Project at La Palma observatories in 2008. Ionization parameters and distance of the BAL region from the center (data still to be reduced...)

Radio continuum & polarization

Effelsberg

- Data from fall 2008 observations (~15% overlapping)
- Possible observations during next run in July (variabilty project)

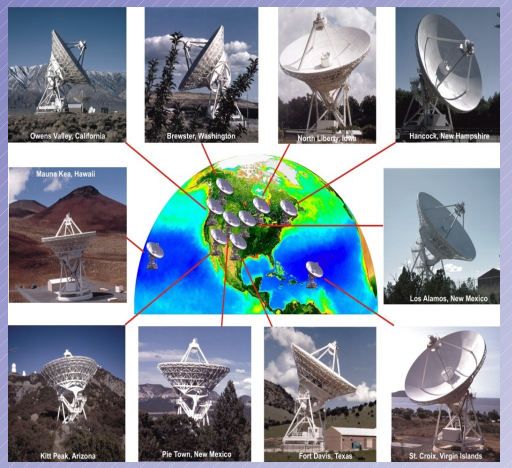
VLA

- Observations scheduled for next July @ 1.38, 4.8, 8.4, 22, 43 [GHz]
- 30 RL BALs + 32 sources for comparison sample

Morphology & orientation

VLBA

- Proposal for the first 6 brightest sources (under review)
- 4.8 and 8.4 GHz observations



EVN

- Proposal for the second 6 brightest sources (under review)
- 4.8 GHz observations. Future 8.4 GHz (next deadline)

Dust properties

IRAM – Pico Veleta 30 m telescope

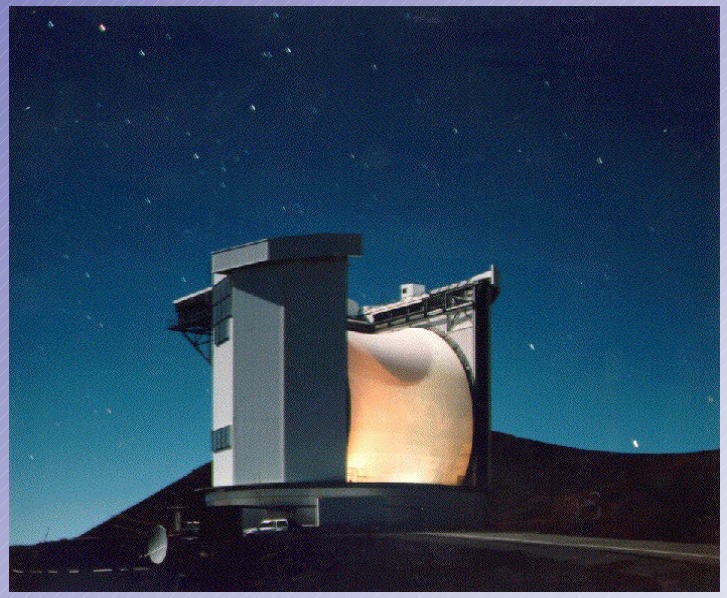
- First 16 brightest objects
- Observations @ 250 GHz with MAMBO next winter (B category)

APEX

- SABOCA observations @ 850 GHz of 6 sources between the first 16 (proposal under review)

JCMT

- SCUBA2 observations of the remaining 10 sources @ 350 and 660 GHz
- Expected availability of SCUBA2 in the second semester of 2009



H I absorption & CO lines

GMRT

- Proposal in preparation (deadline 7th July) also for continuum

WSRT & IRAM

Still to be planned...

Infrared band

TNG

- Data taken in 2008. To be reduced during my period at Santander (January-June 2010)

Thank you!