
Ap Summary: COROT Be star group

J. Fabregat, on behalf of the Be star group

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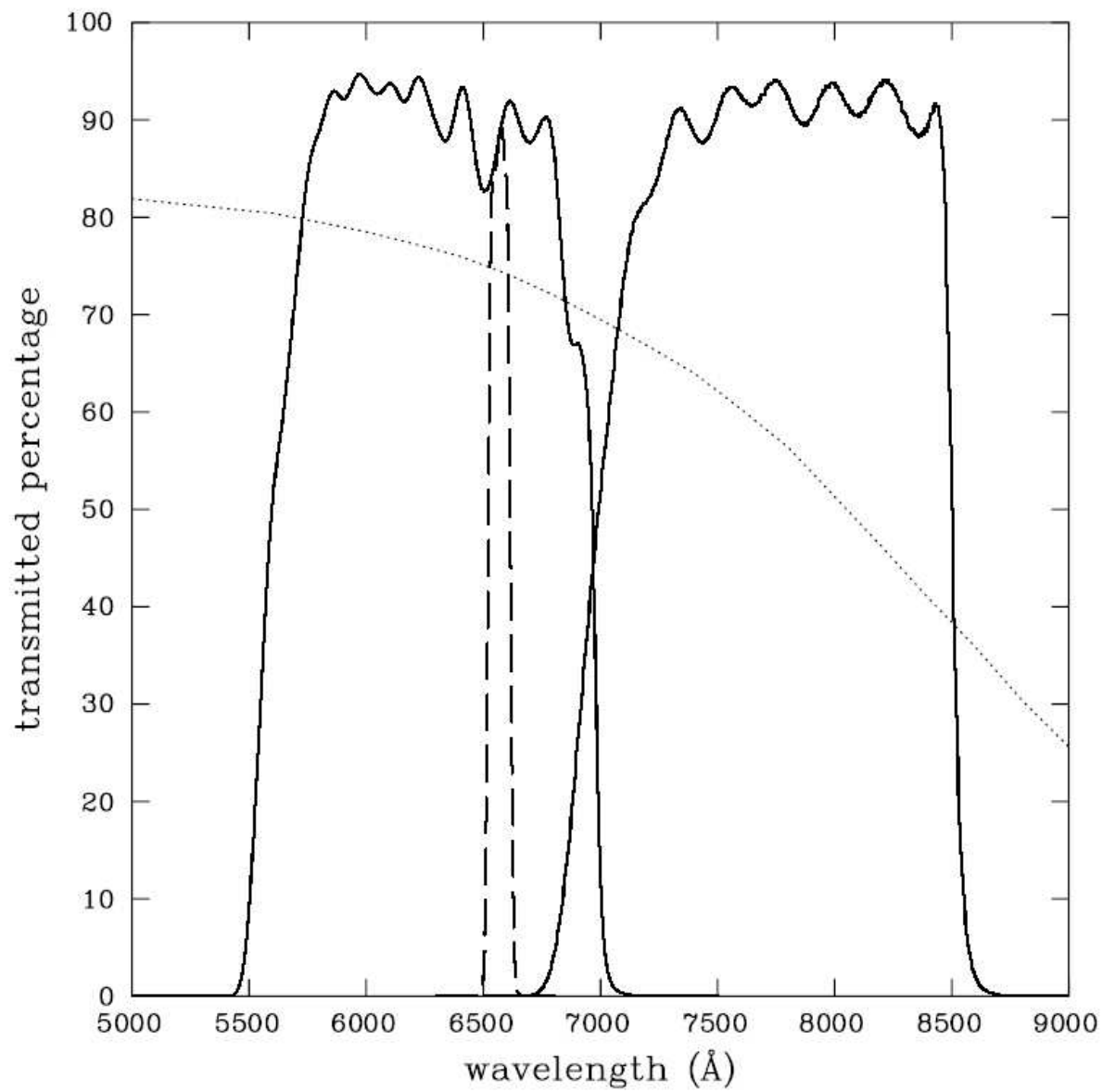
AP COROT Be star group

- Programme accepted for AO1, in collaboration with the B star group
- Observation of all faint Be stars (~ 40) + some B stars (~ 250) in the center and anticenter EXO fields
 - Search for signatures of rotational modulation and pulsations
 - Perform seismic modelling of the stellar interior structure
 - Statistical study to fine-tune the excitation mechanism in B stars and calibrate evolutionary models
 - Study occurrence of Be phenomenon and relation with pulsations, magnetic field and rotation
 - Link between Be outbursts and pulsation beating

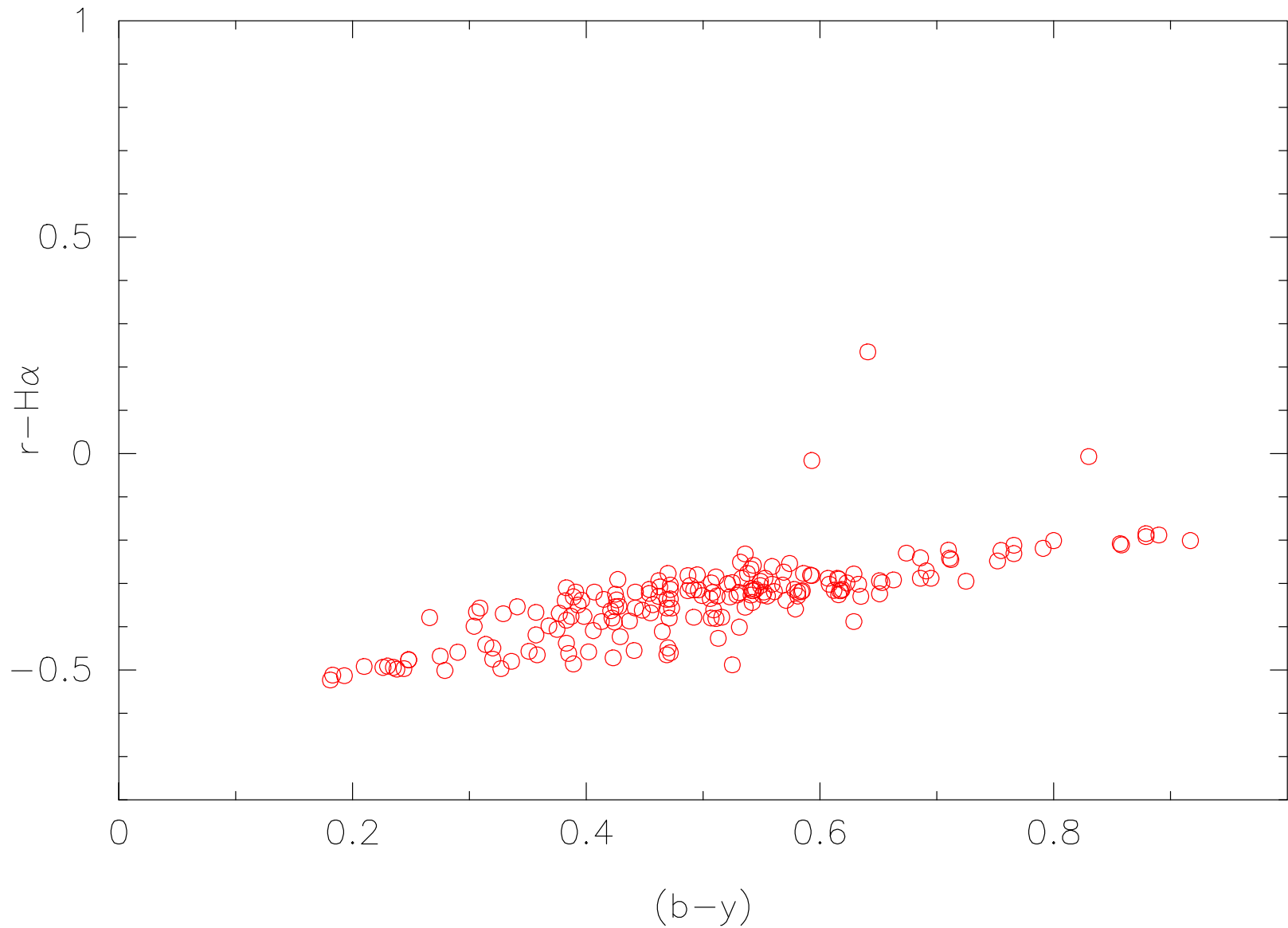
AP COROT Be star group

- Search for faint Be stars in the COROT fields
 - $H\alpha$ + Strömngren photometry in Calar Alto: 4 Be stars in the anticenter (CW5)
 - Spectroscopy with VLT-GIRAFFE: 2 Be stars in the anticenter (CW8)
 - IR photometry with Spitzer: 10 Be stars in the anticenter (CW9)
 - $H\alpha$ + Strömngren photometric survey with the WFC at the INT, started in August 2006

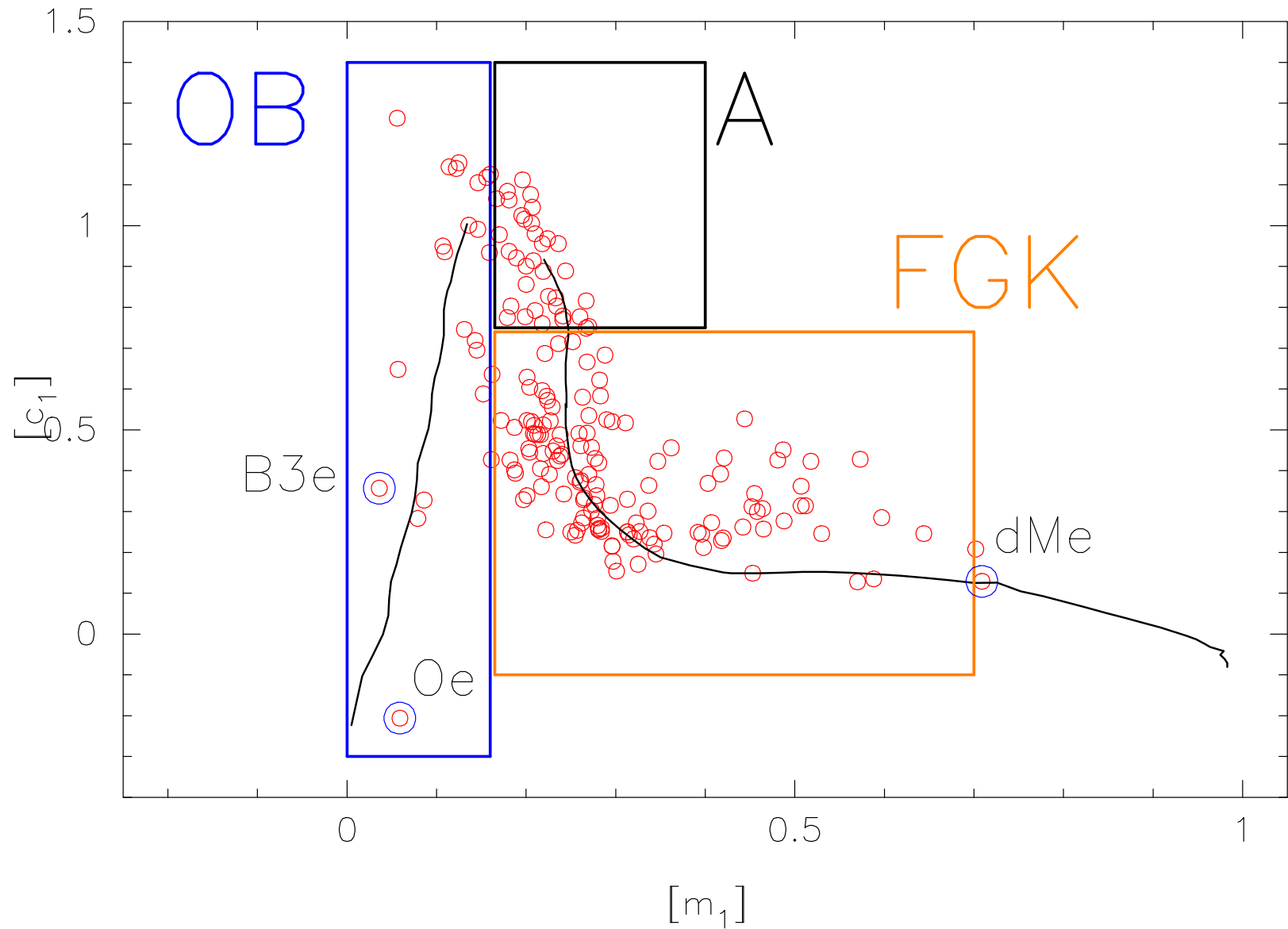
H α & Sloan r' filters



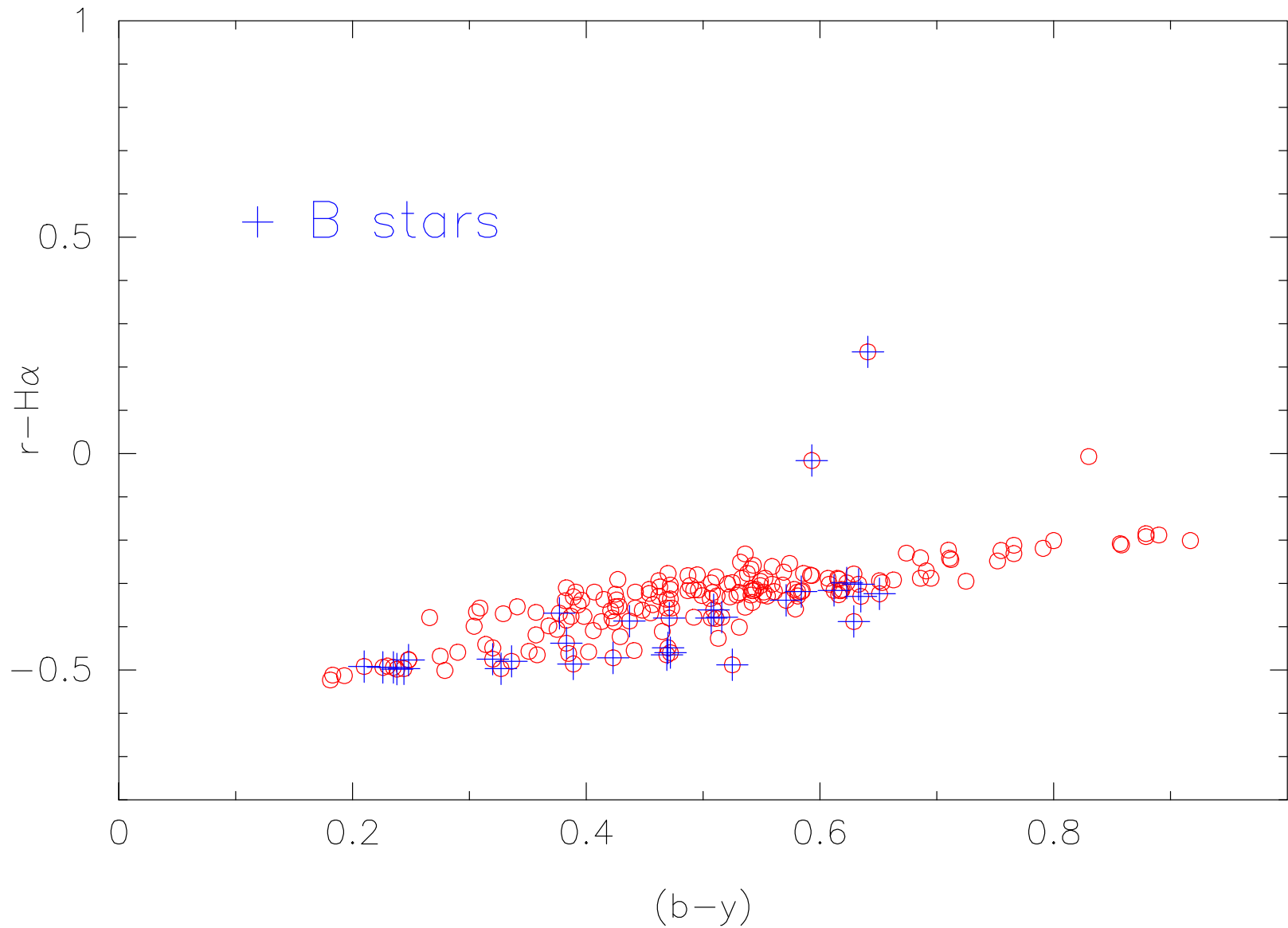
$(r' - H\alpha) - (b - y)$ plane



Reddening-free $[m_1] - [c_1]$ plane

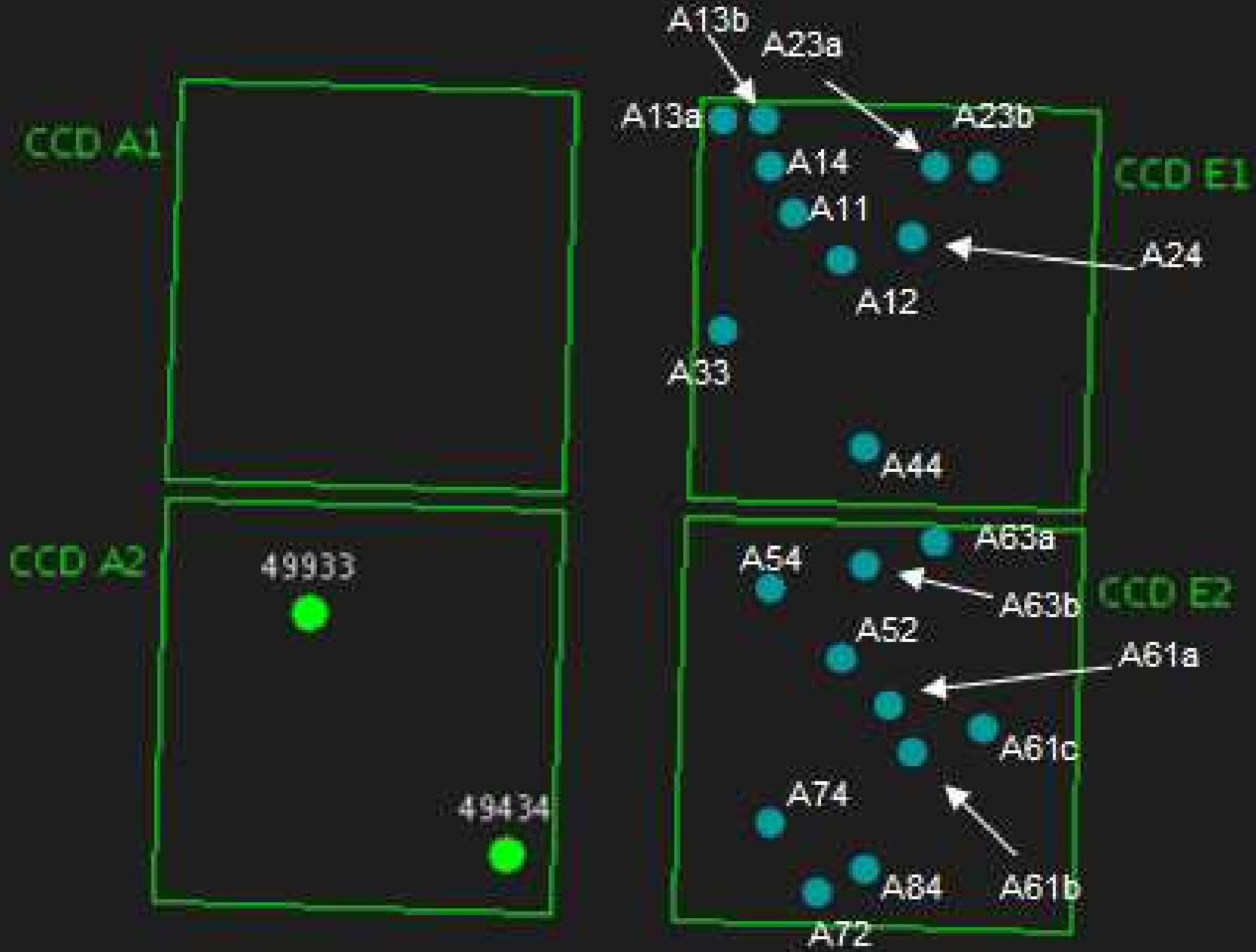


$(r' - H\alpha) - (b - y)$ plane



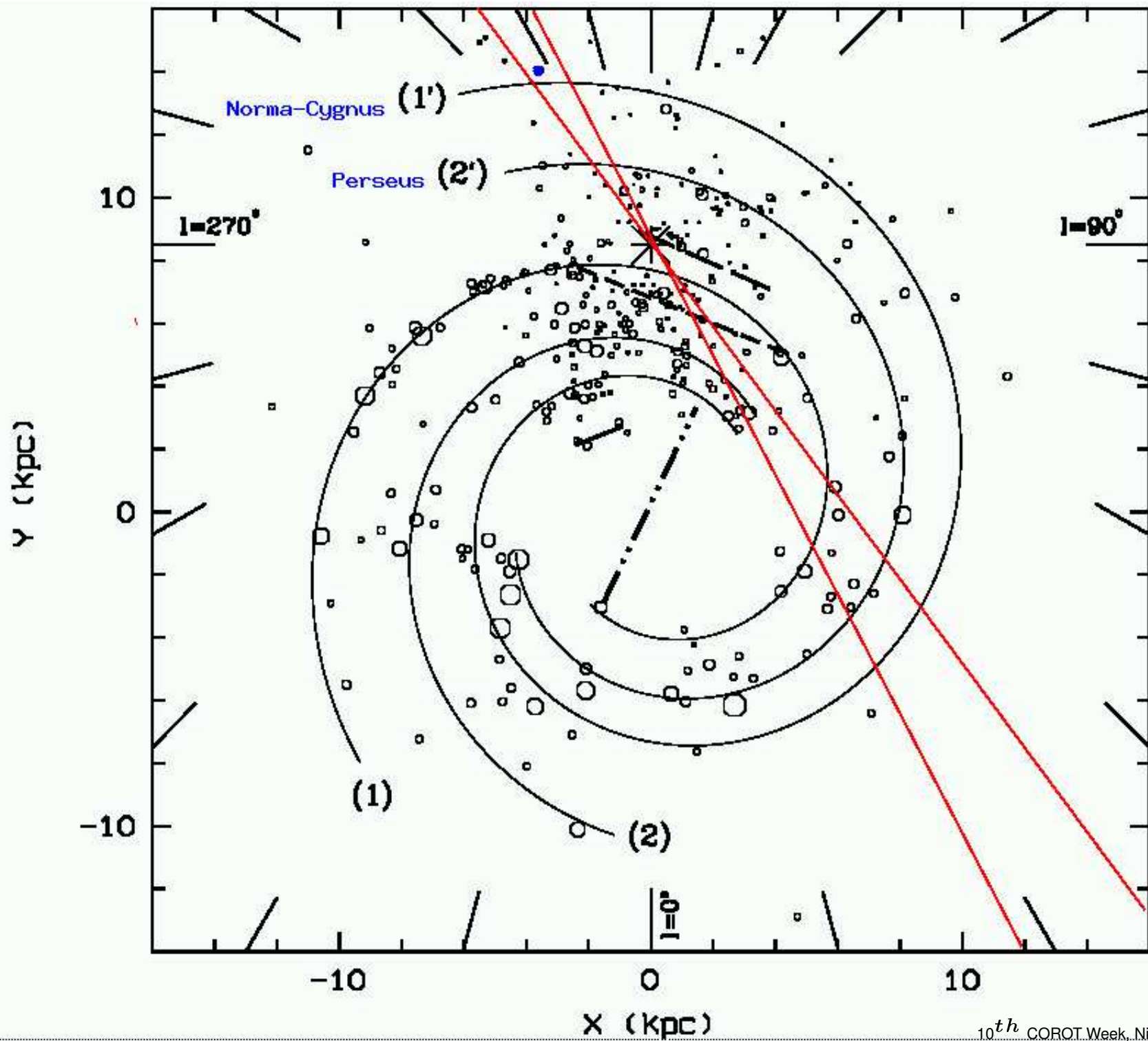
AP COROT Be star group

- 50% of the center and 85% of the anticenter field surveyed in 2005
- 12 faint Be stars found in the center, and 22 in the anticenter
- More Be stars to be added from other galactic emission line surveys:
 - Kohoutek & Wehmeyer 1999
 - IPHAS survey, Drew et al. 2005
- Application for more observing time in semester 2006B

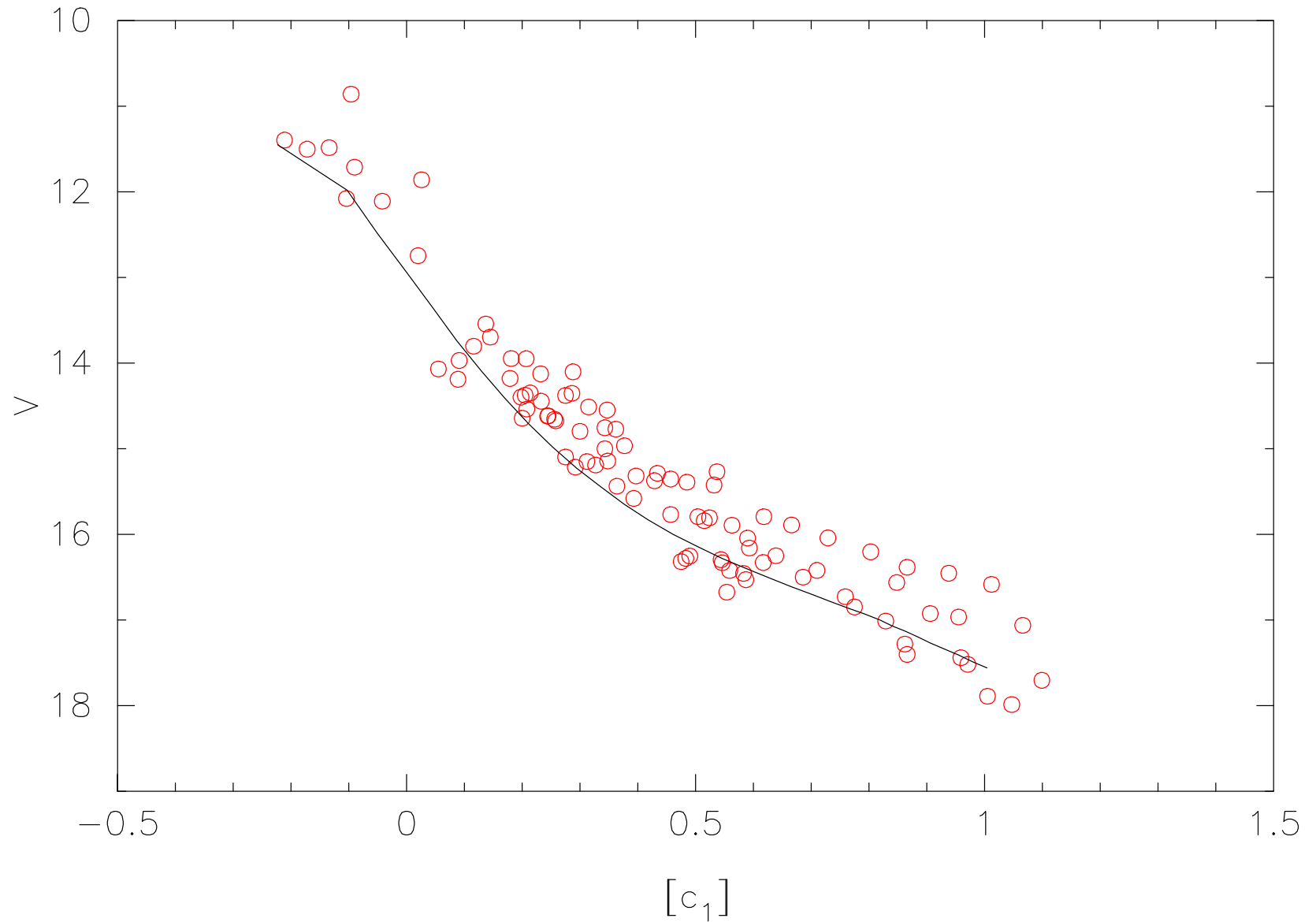


Dolidze 25

- Very young (log age = 6.8 years) open cluster in the anticenter EXO field
- At 5.5 Kpc, it is well beyond the Perseus galactic arm, and is a tracer of the outer Norma-Cygnus arm
- It is metal-deficient, with abundances lower than solar by a factor of six (Lennon et al. 1990, A&A 240, 340)



Dolidze 25 B star sequence



Dolidze 25 B star sequence

