

CFHT Megacam proposals: Large Scale Structures
(proposals assigned to O. Le Fèvre)

Proposal	Filters	Limiting magnitudes	Number of 1x1deg ² pointings	Sky location	Scheduling requirements	Total program time
1. XMM serendipitous x-ray sky survey (Guillout)	BVRI ?	25	100 ?	Existing XMM pointings (all over sky)	None (assume XMM observations exist)	?
2. Megacam survey of clusters of galaxies (Blanchard)	UBVI BVRI	V=25.4, I=24 (point source, 3 σ) I=24.3	100	XMM selected clusters of galaxies	None (assume XMM observations exist)	55 nights
3. A combined MEGACAM/XMM/VIRMOS LSS survey (Pierre)	(U)BVRI	AB: I=24.8 (1h), R=25.4 (1h), V=25.4 (1h30), B=25.7 (2h), (U=26.1)	64 deg ²	$\alpha=02h20, \delta=-5^\circ$	None	45 nights (+40)
4. Mapping the large scale structures and the evolution of galaxies on 100 deg ² (Le Fèvre)	UBVRIZ	AB~25 (3" aperture, 5 σ) U: 2h30, B=1h30, V=1h, R=1h, I=1h, z=1.2h	100 deg ²	High galactic latitude	None	100 nights
5. A MegaPrime ultra deep survey (Le Fèvre)	UBVRIZ	AB~28.5 (3" aperture, 5 σ) U: 150h, B=100h, V=70h, R=70h, I=70h, z=85h	1 deg ²	$\alpha=02h20, \delta=-5^\circ$	None (but may be interesting to look for variable objects)	60 nights

- Programs 3 and 4 can easily be combined into one single observing program
- Program 5 can be conducted on one of the pointings of programs 3/4
- Programs 3, 4, 6 (Mellier), and 8 (Kaiser) can most probably be combined into one single observing program
- The program from Cuby should be combined with 3, 4, 6, 8

Comments:

1. I feel that 6 weeks a year allocated to Megacam surveys are really not enough if we want CFHT to keep having an impact in worldwide astronomy. 50% of dark time on large surveys with Megacam could be a goal: ~90 nights per year
2. Queue scheduling / service observing would be the best way to conduct large surveys

