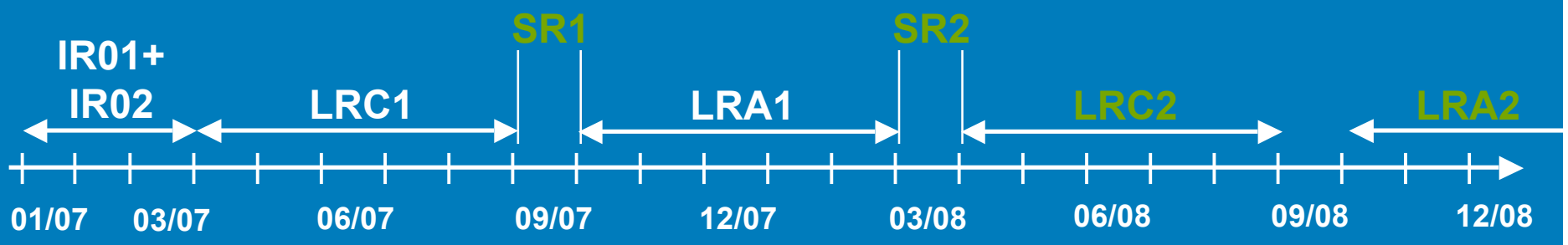
Field evaluation – CW10



- Initial Runs: IR01 and IR02 accepted at CS18 (April 5-6 2006)
- Long Runs:
  - LRC1 + LRA1 accepted at CW9 (ESTEC)
  - LRC2: around HD171834 as discussed and proposed by SWG, accepted by ECO and CS (CS18), preliminary position and target proposal to be made at CW10
  - LRA2: position and targets discussed and proposed by SWG, to be confirmed by ECO and accepted by SC19
- Short Runs: need proposals in the (eastern) centre dir.!
  - Anticentre: several proposals discussed among SWG
  - Centre: field HD183324 (lambda Boo star)

Field evaluation – CW10

Initial Runs

- **Initial Runs: IR01 and IR02 accepted at CS18 (april 5-6 2006)**

Information available at *http://www.lesia.obspm.fr/~corotswg/*

At most 90 days for IRs in the anticentre direction:

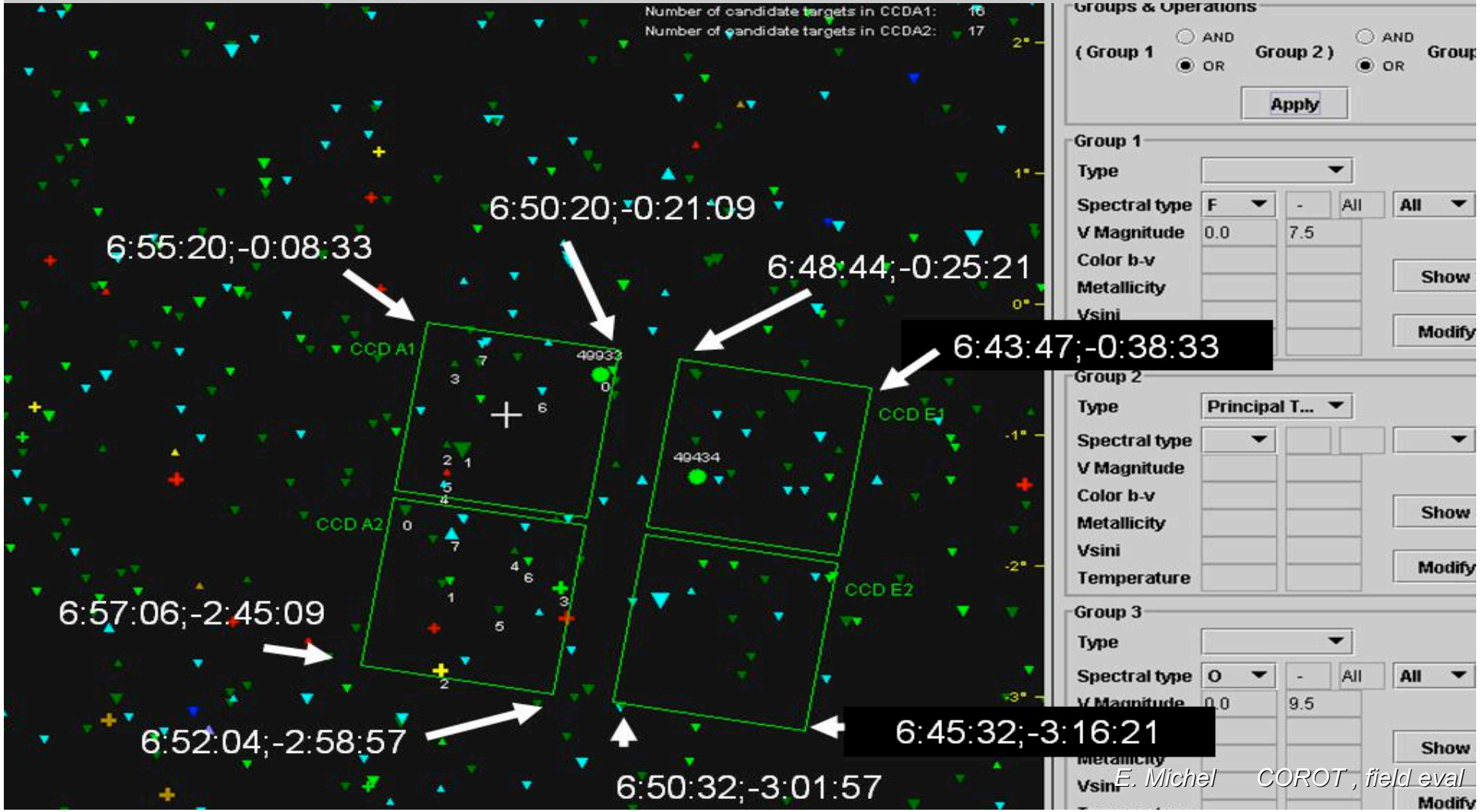
- IR01 (best field) between 30 and 60days

- IR02 30 days

Fields evaluation – CW10

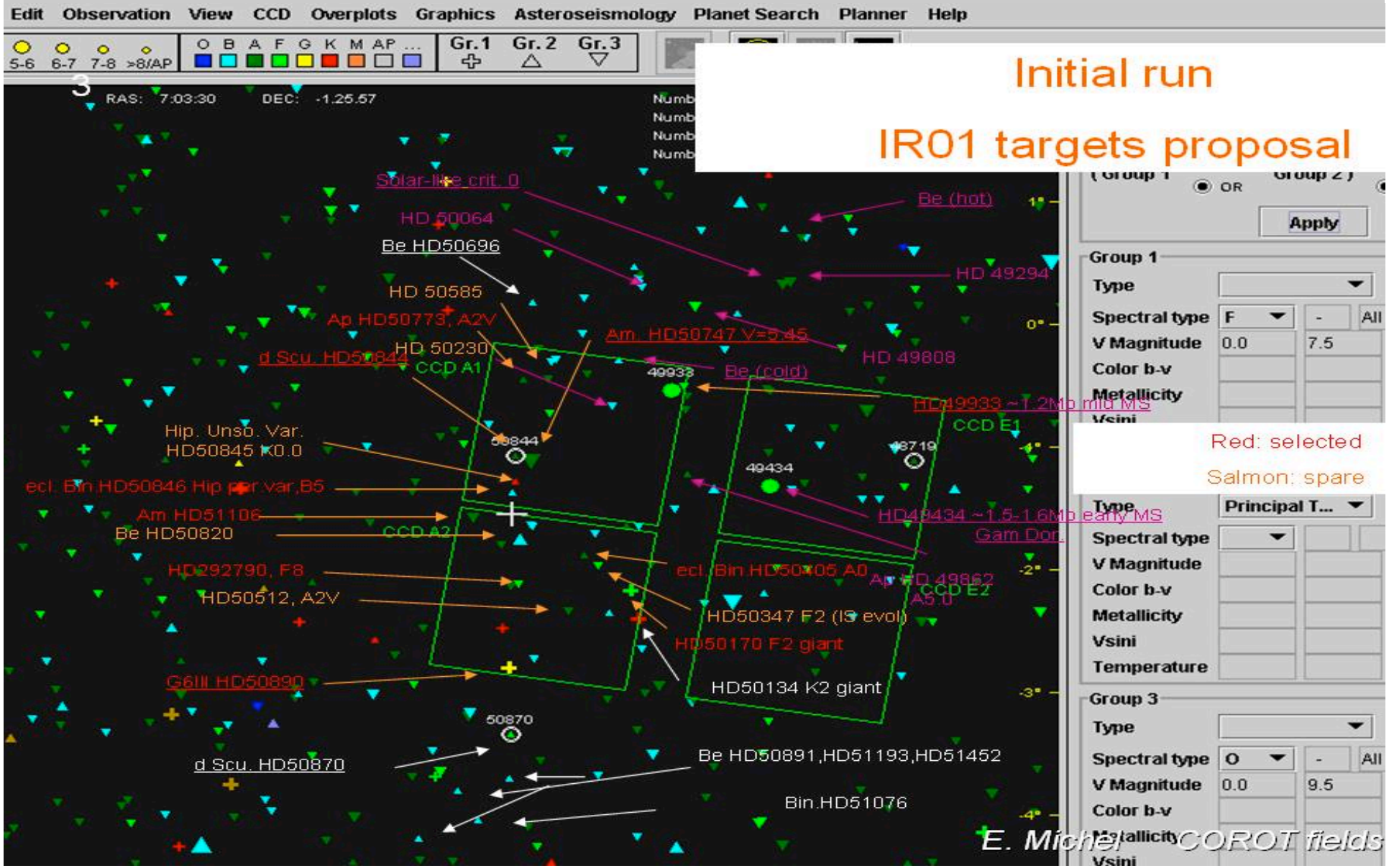
Initial Run IR01

RA:6:50:25 (102.60) DEC:-1.42.00 ROT(deg):14.96 ROLL(DEG):9.60



Fields evaluation – CW10

Initial Run IR01



Fields evaluation – CW10

Initial Run IR01

RA:6:50:25 (102.60) DEC:-1.42.00 ROT(deg):14.96 ROLL(DEG):9.60

Asteroseismology Pro...

Block: IREM01bis Id: 1329.4 Last update: 2006-04-20 12:19:38
Catalogue: Non-specified User: michele Current date: 2006-05-31 16:55:26
Creation date: 20/04/2006

CCD A1

Priority	C Id	Name	m_V	SpT	M_V	log(Teff)	Vsin(i)	Parallax	Star type	SCA0
0	20	HD 49933	5.77	F 2.0 V	3.39	3.81	10.9	33.45	Principal Target	X
1	116	HD 50747	5.45	A 4.0 IV	-3.43	3.89		6.73		X
2	123	HD 50844	9.1	A 2.0	1.31	3.88	64.2		Delta Scuti	
3	83	HD 50773	9.36	A 2.0	1.75	3.93			Ap star	
4	156	HD 50846	8.2	B 5.0	-3.37	4.23		0.87	Eclipsing binary, Hipparcos periodic variable, Binary	X
5	145	HD 50845	8.12	K 0.0	0.8	3.69		2.92	Hipparcos unsolved variable	X
6	44	HD 50230	8.95	B 3.0	1.34	4.03	22.6			
7	57	HD 50583	8.28	B 9.0	0.67	4.05		0.52		X
8										
9										

CCD A2

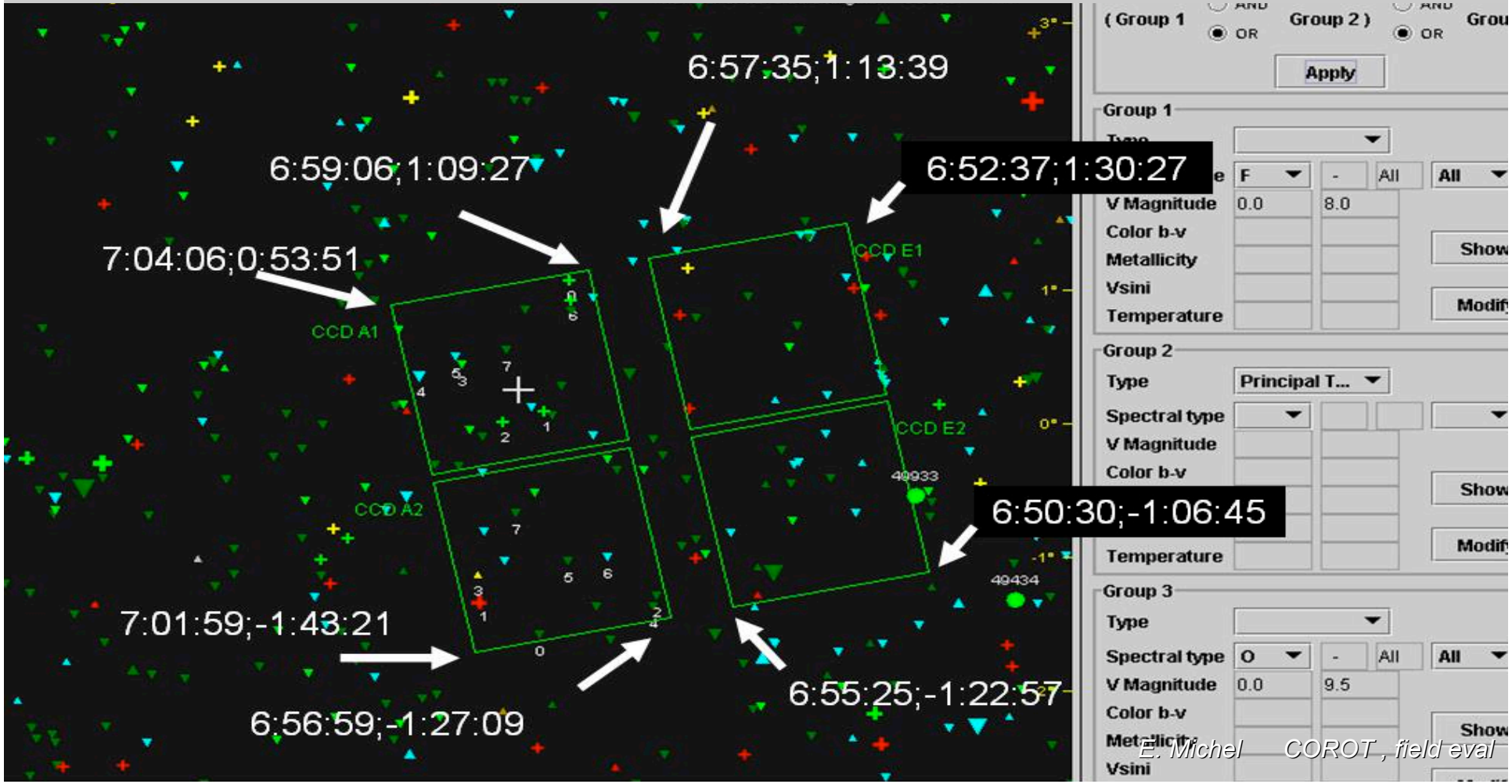
Priority	C Id	Name	m_V	SpT	M_V	log(Teff)	Vsin(i)	Parallax	Star type	SCA0
0	214	HD 51106	7.36	A 3.0	1.53	3.9		5.14		X
1	263	HD 292790	9.48	F 8.0	1.87	3.81				
2	400	HD 50890	6.04	G 6.0 III	6.92	3.67	12.8	2.59		
3	223	HD 50170	6.82	F 2.0	-6.84	3.82	10.5	1.45		X
4	187	HD 50405	9.32	A 0.0	1.71	4.01			Eclipsing binary	
5	277	HD 50512	9.47	A 2.0	1.86	3.93				
6	196	HD 50347	9.0	F 2.0	-1.95	3.81				
7	204	HD 50820	6.21	B 3.0 IV	-7.19	4.37		0.71	Be star	X
8										
9										

Done

Fields evaluation – CW10

Initial Run IR02

RA:6:57:18 (104.32 degdecim) DEC:-0.06.36 ROT(deg):-6.24 ROLL(deg):-11.60



Fields evaluation – CW10

Initial Run IR02

RA:6:57:18 (104.32 degdecim) DEC:-0.06.36 ROT(deg):-6.24 ROLL(deg):-11.60

Block: IRnorthsearch3 Id: 1376.4 Last update: 2006-04-20 13:48:41
Catalogue: Non-specified User: michele Current date: 2006-05-31 16:59:41
Creation date: 20/04/2006

CCD A1

Priority	C Id	Name	m_V	SpT	M_V	log(Teff)	Vsin(i)	Parallax	Star type	SCA0
0	305	HD 52010	7.93	F 5.0	1.42	3.83	59.4			X
1	294	HD 52185	7.63	F 0.0	2.13	3.85		7.61		X
2	343	HD 52431	7.58	F 5.0 V	3.26	3.82	14.6	13.68		X
3	413	HD 52689	8.22	F 5.0	3.6	3.84				X
4	480	HD 53004	7.26	B 9.0	0.72	4.06	54.0	5.84		X
5	422	HD 293039	9.35	B 3.0 III	1.74	3.93				
6	292	HD 51956	7.52	F 8.0 I	6.71	3.75	24.0	1.37		X
7	357	HD 52408	8.1	A 0.0	0.49	4.0				X
8										
9										

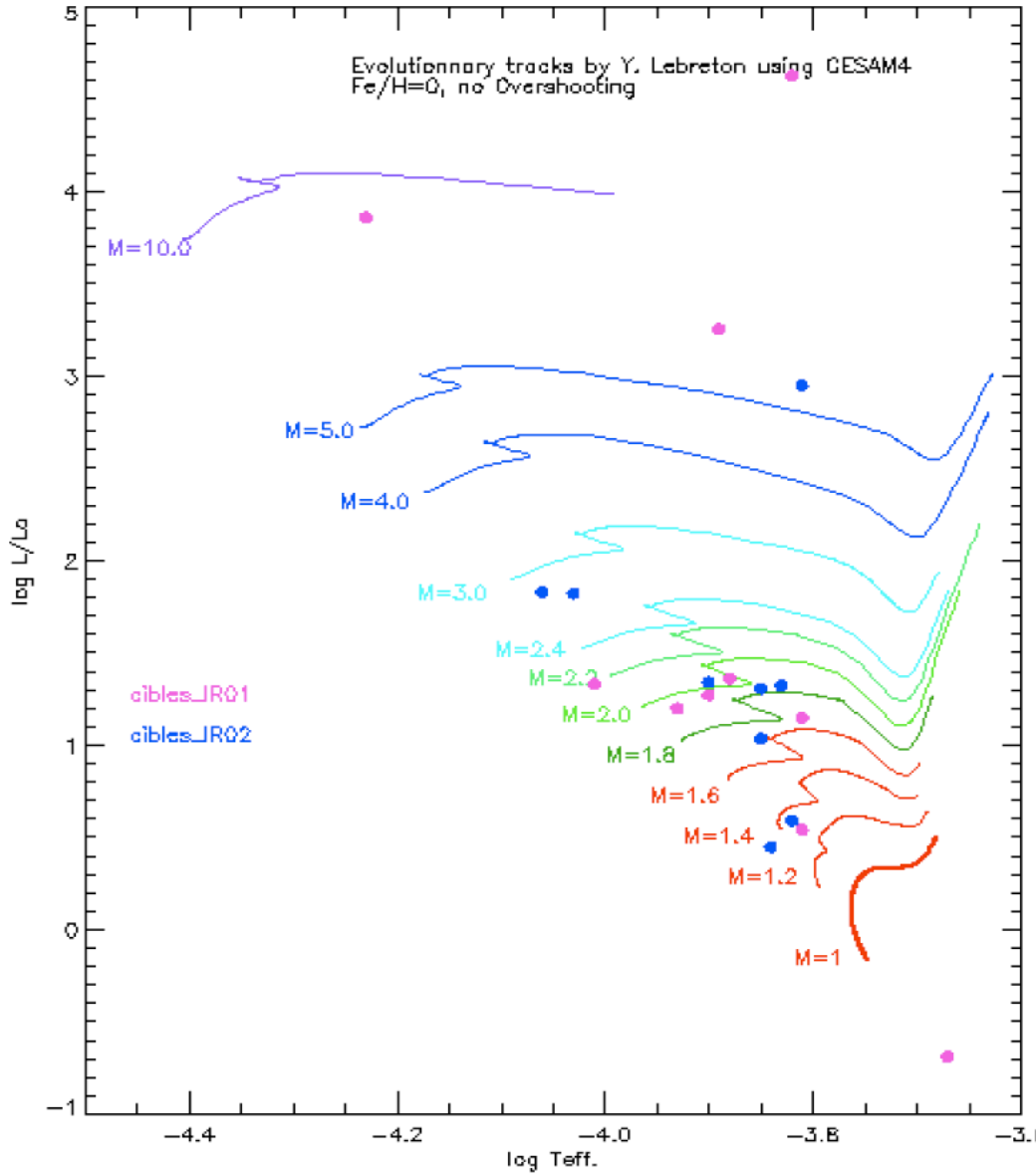
CCD A2

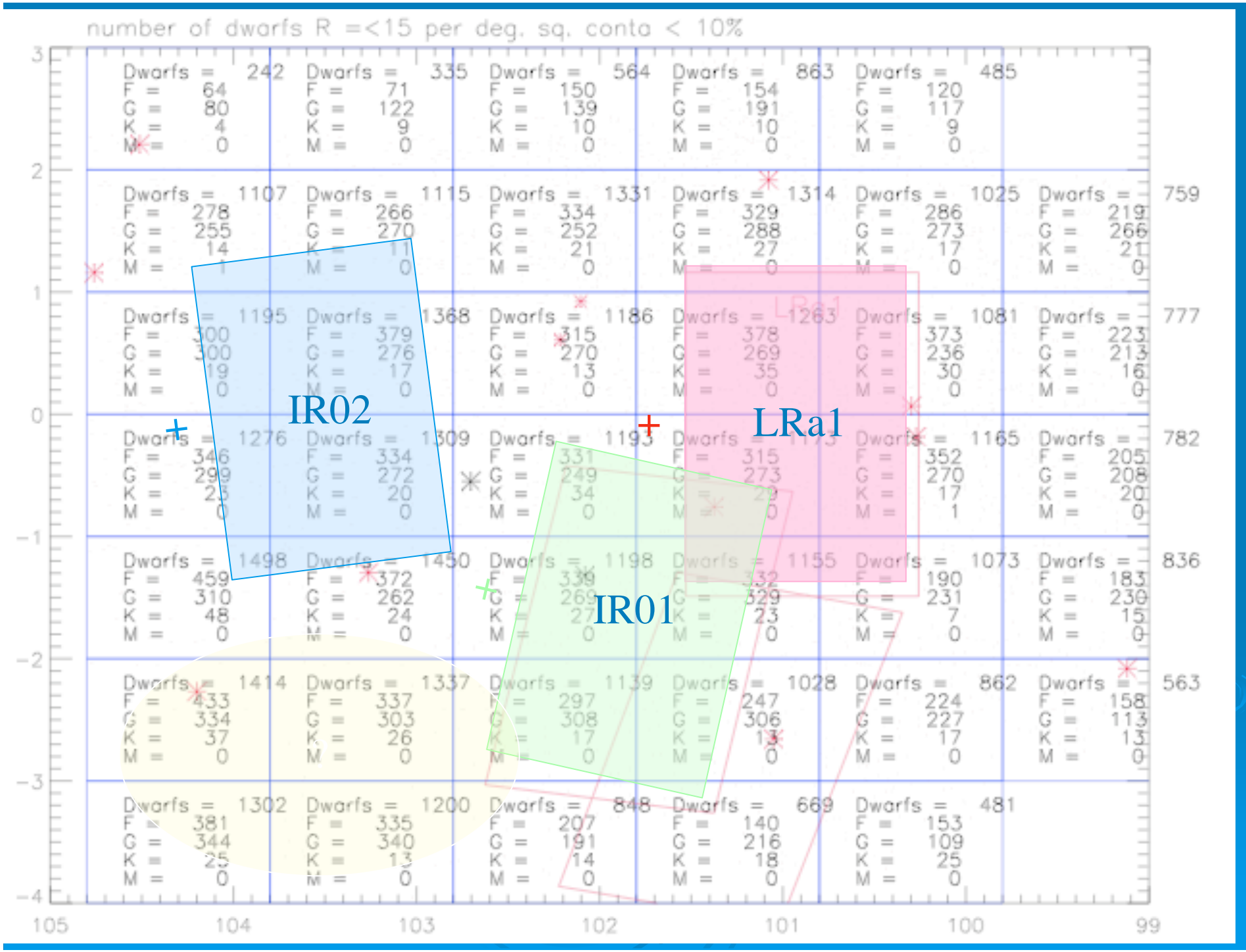
Priority	C Id	Name	m_V	SpT	M_V	log(Teff)	Vsin(i)	Parallax	Star type	SCA0
0	392	HD 52239	9.06	A 5.0	1.45	3.85				
1	443	HD 52611	6.17	K 0.0	0.6	3.59		7.69		X
2	231	HD 51451	8.97	A 3.0	1.36	3.9				
3	426	HD 52610	8.52	G 0.0	-2.63	3.81		3.43	Hipparcos periodic variable	
4	241	HD 51473	8.19	A 0.0	0.58	4.03		2.8		X
5	304	HD 52045	8.72	A 0.0	1.11	3.94				
6	251	HD 51782	8.94	B 8.0 V	1.33	4.07				
7	344	HD 52379	8.1	A 2.0	0.9			3.63		X
8										
9										

Done

Fields evaluation – CW10

Initial Run IR01+IR02




number of dwarfs R =<15 per deg. sq. conta < 10%
IR02
LRa1
IR01
Dwarfs = 242 F = 64 G = 80 K = 4 M = 0
Dwarfs = 335 F = 71 G = 122 K = 9 M = 0
Dwarfs = 564 F = 150 G = 139 K = 10 M = 0
Dwarfs = 863 F = 154 G = 191 K = 10 M = 0
Dwarfs = 485 F = 120 G = 117 K = 9 M = 0
Dwarfs = 1107 F = 278 G = 255 K = 14 M = 1
Dwarfs = 1115 F = 266 G = 270 K = 11 M = 0
Dwarfs = 1331 F = 334 G = 252 K = 21 M = 0
Dwarfs = 1314 F = 329 G = 288 K = 27 M = 0
Dwarfs = 1025 F = 286 G = 273 K = 17 M = 0
Dwarfs = 759 F = 219 G = 266 K = 21 M = 0
Dwarfs = 1195 F = 300 G = 300 K = 19 M = 0
Dwarfs = 1368 F = 379 G = 276 K = 17 M = 0
Dwarfs = 1186 F = 315 G = 270 K = 13 M = 0
Dwarfs = 1263 F = 378 G = 269 K = 35 M = 0
Dwarfs = 1081 F = 373 G = 236 K = 30 M = 0
Dwarfs = 777 F = 223 G = 213 K = 16 M = 0
Dwarfs = 1276 F = 346 G = 299 K = 23 M = 0
Dwarfs = 1309 F = 334 G = 272 K = 20 M = 0
Dwarfs = 1193 F = 331 G = 249 K = 34 M = 0
F = 315 G = 273 K = 29 M = 0
Dwarfs = 1165 F = 352 G = 270 K = 17 M = 1
Dwarfs = 782 F = 205 G = 208 K = 20 M = 0
Dwarfs = 1498 F = 459 G = 310 K = 48 M = 0
Dwarfs = 1450 F = 372 G = 262 K = 24 M = 0
Dwarfs = 1198 F = 339 G = 269 K = 27 M = 0
F = 332 G = 329 K = 23 M = 0
Dwarfs = 1155
Dwarfs = 1073 F = 190 G = 231 K = 7 M = 0
Dwarfs = 836 F = 183 G = 230 K = 15 M = 0
Dwarfs = 1414 F = 433 G = 334 K = 37 M = 0
Dwarfs = 1337 F = 337 G = 303 K = 26 M = 0
Dwarfs = 1139 F = 297 G = 308 K = 17 M = 0
Dwarfs = 1028 F = 247 G = 306 K = 13 M = 0
Dwarfs = 862 F = 224 G = 227 K = 17 M = 0
Dwarfs = 563 F = 158 G = 113 K = 13 M = 0
Dwarfs = 1302 F = 381 G = 344 K = 25 M = 0
Dwarfs = 1200 F = 335 G = 340 K = 13 M = 0
Dwarfs = 848 F = 207 G = 191 K = 14 M = 0
Dwarfs = 669 F = 140 G = 216 K = 18 M = 0
Dwarfs = 481 F = 153 G = 109 K = 25 M = 0
3
2
1
0
−1
−2
−3
−4
105
104
103
102
101
100
99

Field evaluation – CW10

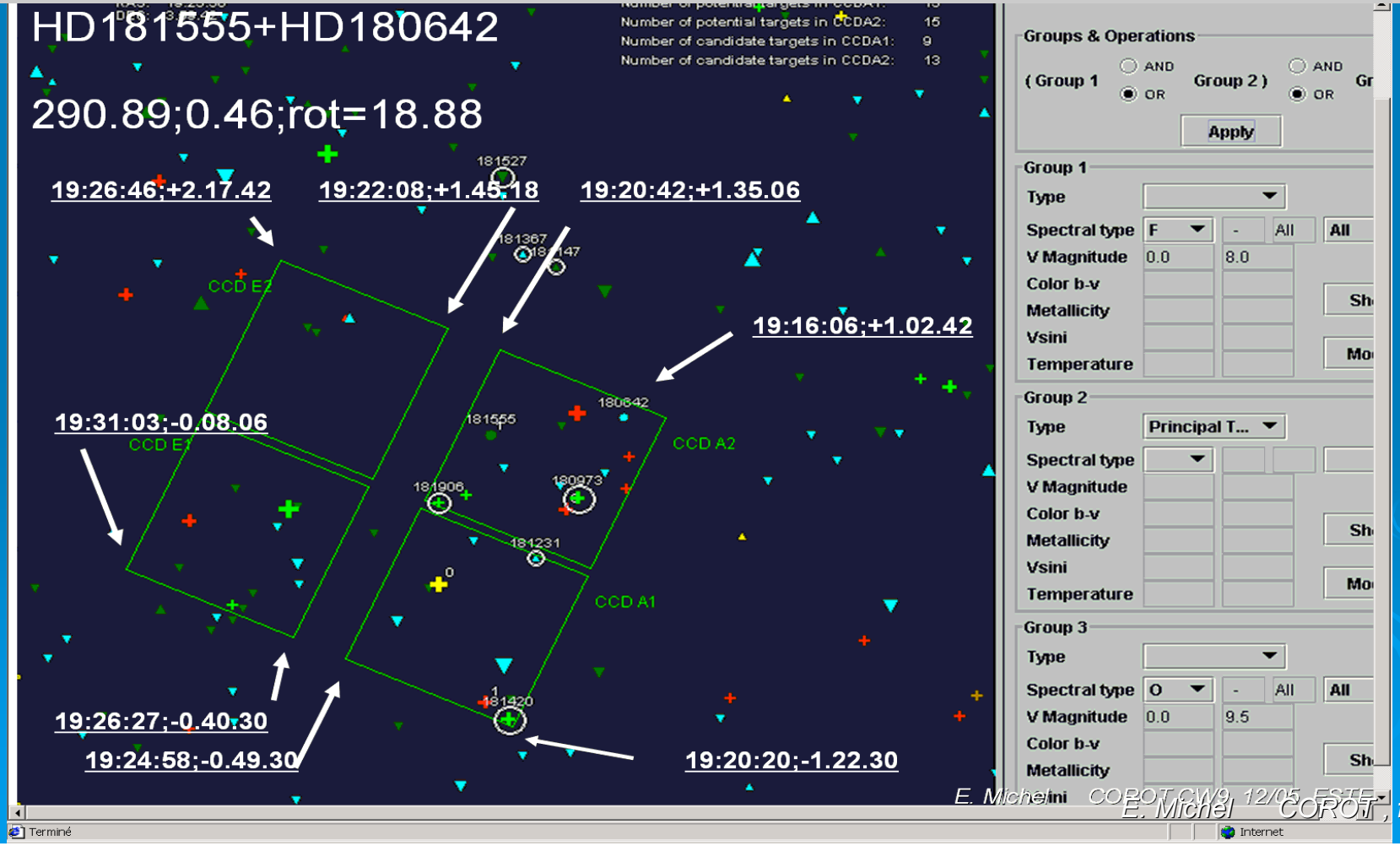
Long Runs

- **LRC1 + LRA1 accepted at CW9 (ESTEC)**
- **LRC2: around HD171834 as discussed and proposed by SWG, accepted by ECO and CS (CS18), preliminary position and target proposal to be made at CW10**
- **LRA2: position and targets discussed and proposed by SWG, to be confirmed by ECO and accepted by SC19**

Fields evaluation – CW10

Long Run LRC1

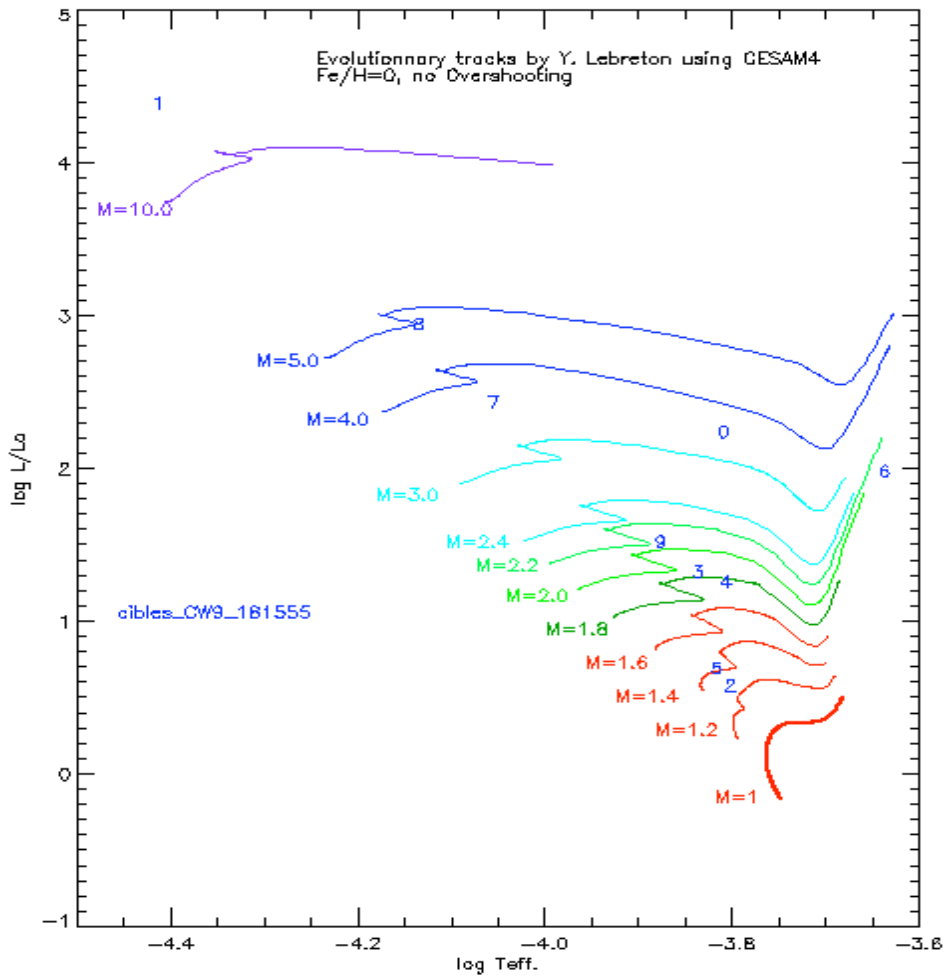
RA=290°.89 DEC=+0°.46 Roll= +18°.88



Fields evaluation – CW10

Long Run LRC1

RA=290°.89 DEC=+0°.46 Roll= +18°.88



LRC1: targets list 18/01/06

CCDA1:----------

	HD	log Teff	mV	Mv	Vsini	SCAO	Sp.Type	comment
5	181420	3.820	6.57	3.100	21		F2.0	solar-like crit.2
6	181907	3.640	5.83	0.600		X	G8.0III	
7	182198	4.060	7.94	-0.65	25	X	B9.0V	
8	181231	4.140	8.69	-1.47			B9.0V	Be
9	181390	3.880	8.64	1.0300			A0.0	end-MS
----------complementary targets-----								
	181991	3.86	8.86	1.25			A2.0	end-MS
	181690	3.92	9.03	1.42			B9.0V	
	181440	4.05	5.49	-0.35	56	X	B9.0III	

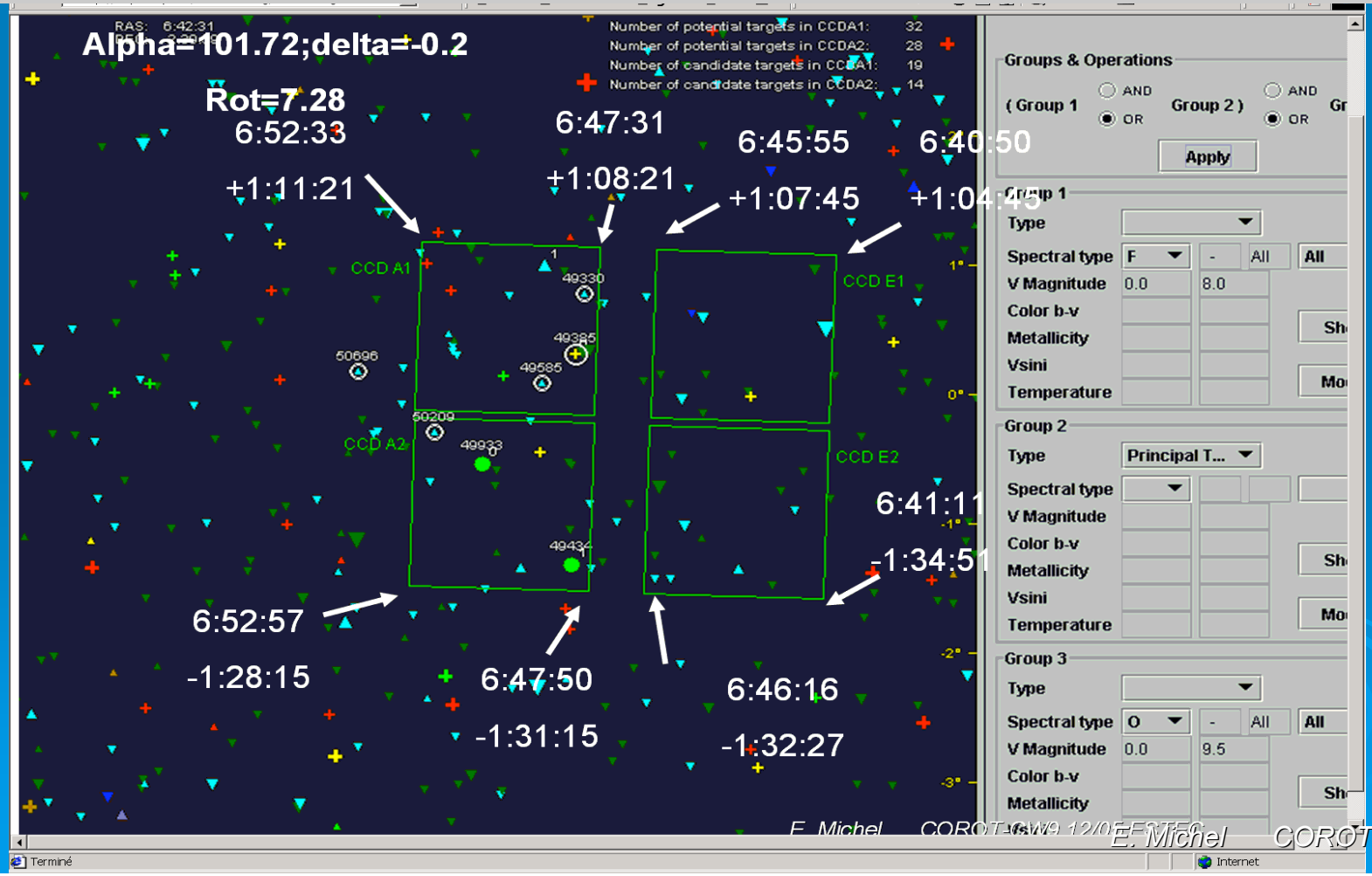
CCDA2:----------

	HD	log Teff	mV	Mv	Vsini	SCAO	Sp.Type	comment
0	181555	?3.81?	7.52?	-0.72?		X	A5.0	d Scu. Ppal Cand
1	180642	4.42	8.27	-3.47		X	B1.5II-III	Beta Cephei Ppal cand
2	181906	3.805	7.65	3.39	18		F8.0	solar-like crit.0
3	181072	3.840	9.14	1.53			A2.0	MS
4	180973	3.810	6.74	1.71	130	X	F0.0	end-MS
----------complementary targets-----								
	181439	3.88	8.97	2.22	45		F0.0	mid-MS
	181732	3.7	7.66	0.87			F5.0	off-MS
	180622	3.68	7.63	1.14			K2.0	

Fields evaluation – CW10

Long Run LRA1

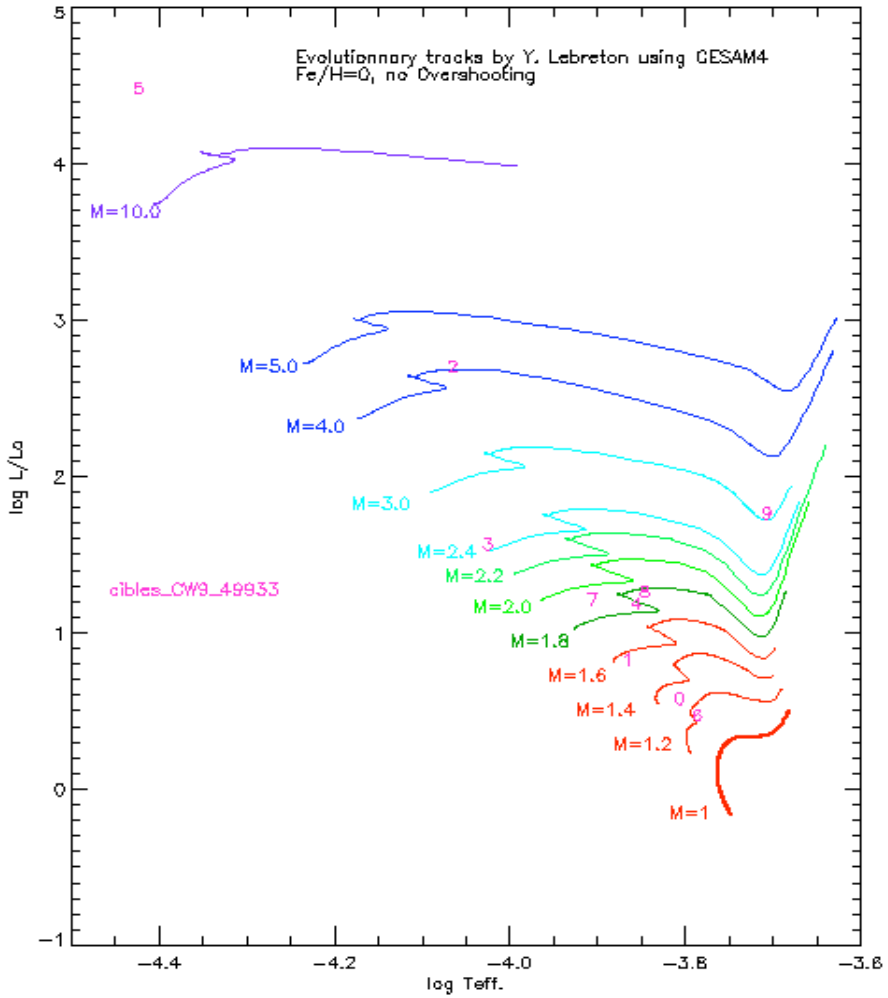
RA=101°.72 DEC=-0°.2 Roll= +7°.28



Fields evaluation – CW10

Long Run LRA1

RA=101°.72 DEC=-0°.2 Roll= +7°.28



LRA1: targets list 18/01/06

CCDA1:----------

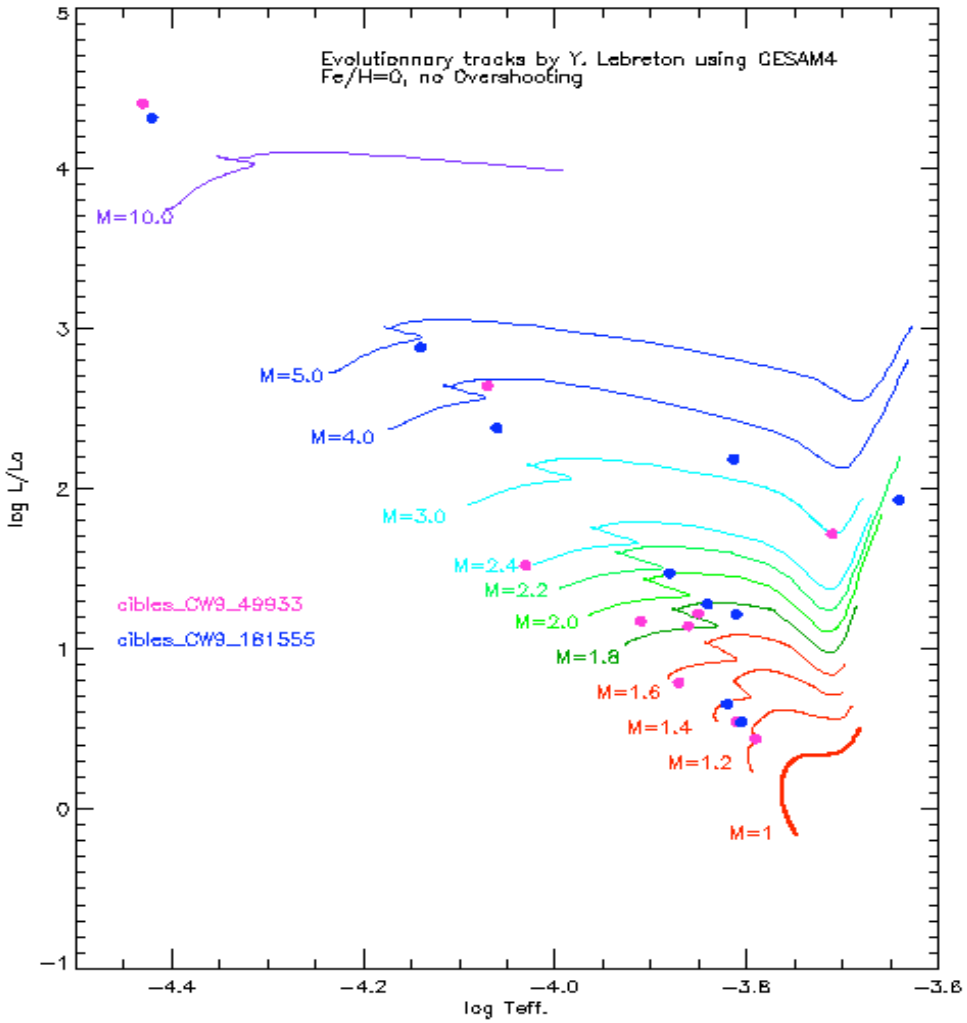
	HD	log Teff	mV	Mv	Vsini	SCAO	Sp.Type	comment
5	49330	4.43	8.88	-3.66	210		B0.0	Be
6	49385	3.790	7.89	3.670	7.5	X	G0.0	
7	49294	3.91	7.0	1.79	111	X	A2.0	
8	49808	3.850	7.98	1.670	114		F0.0V	
9	50064	?3.71?	8.29	?0.68?	41	X	B6.0 I	
----------complementary targets-----								
	49585	3.96	9.06	1.45			B0.5V	Be
	49431	3.95	9.35	1.74			A2.0	
	49567	4.19	6.15	-3	72	X	B3 III	Hipp. uns. Var.

CCDA2:----------

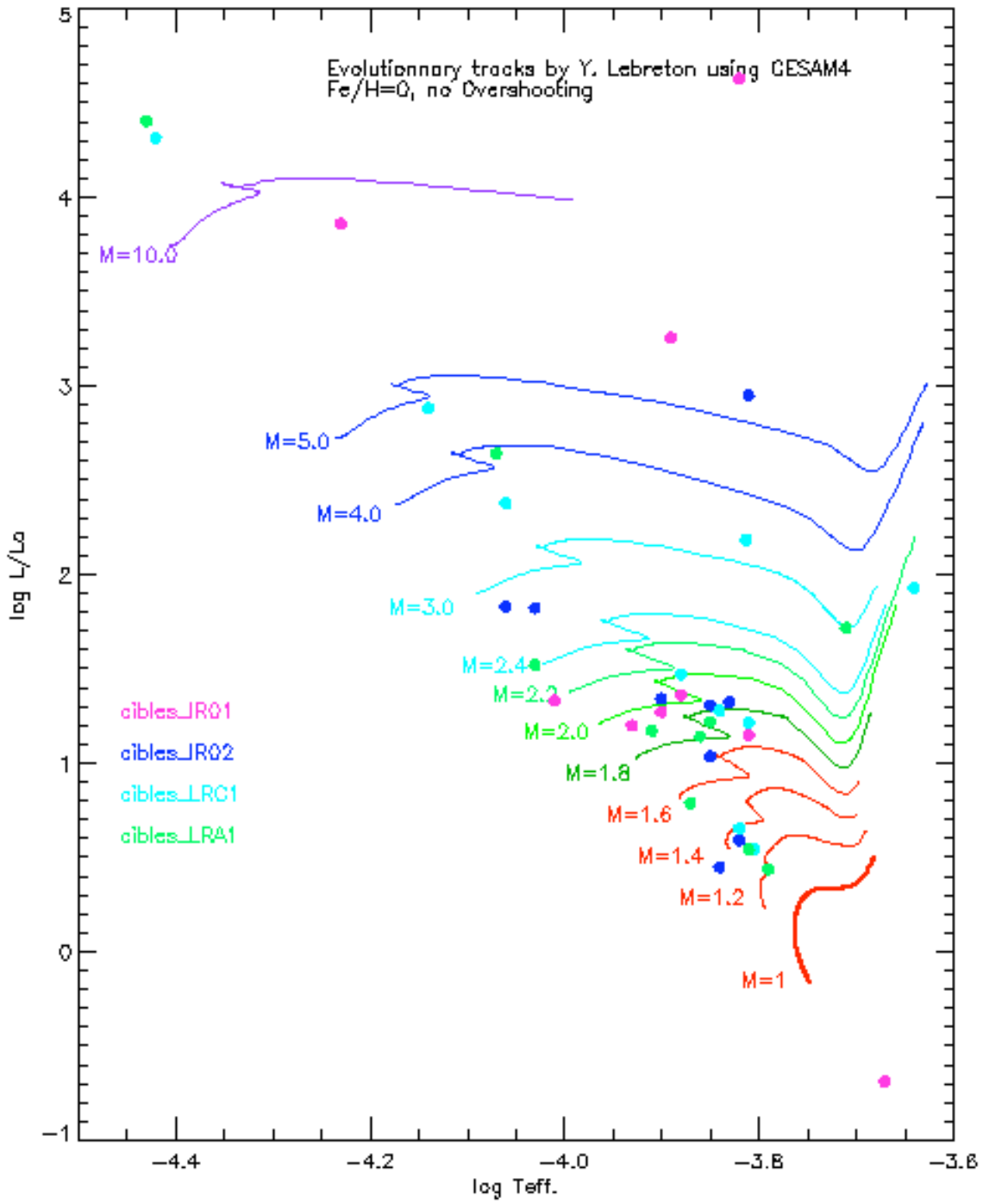
	HD	log Teff	mV	Mv	Vsini	SCAO	Sp.Type	comment
0	49933	3.81	5.77	3.3900	11	X	F2.0V	Ppal cand
1	49434	3.87	5.75	2.7400	89	X	F1.0V	Gam Dor Ppal cand
2	50209	4.07	8.39	-1.2600	200	X	B9.0V	Be
3	50230	?4.03?	8.95	?1.34?	23		B3.0	
4	49862	3.86	9.47	1.86			A5.0	Ap
----------complementary targets-----								
	49432	3.82	9.47	1.86			A5.0	
	49433	3.96	9.13	1.52			A0.0	
	49713	4.09	7.32	0.6	50	X	B9.0	Ap

Fields evaluation – CW10

Long Runs LRC1+LRA1



IR01+IR02+ LRc1+LRa1

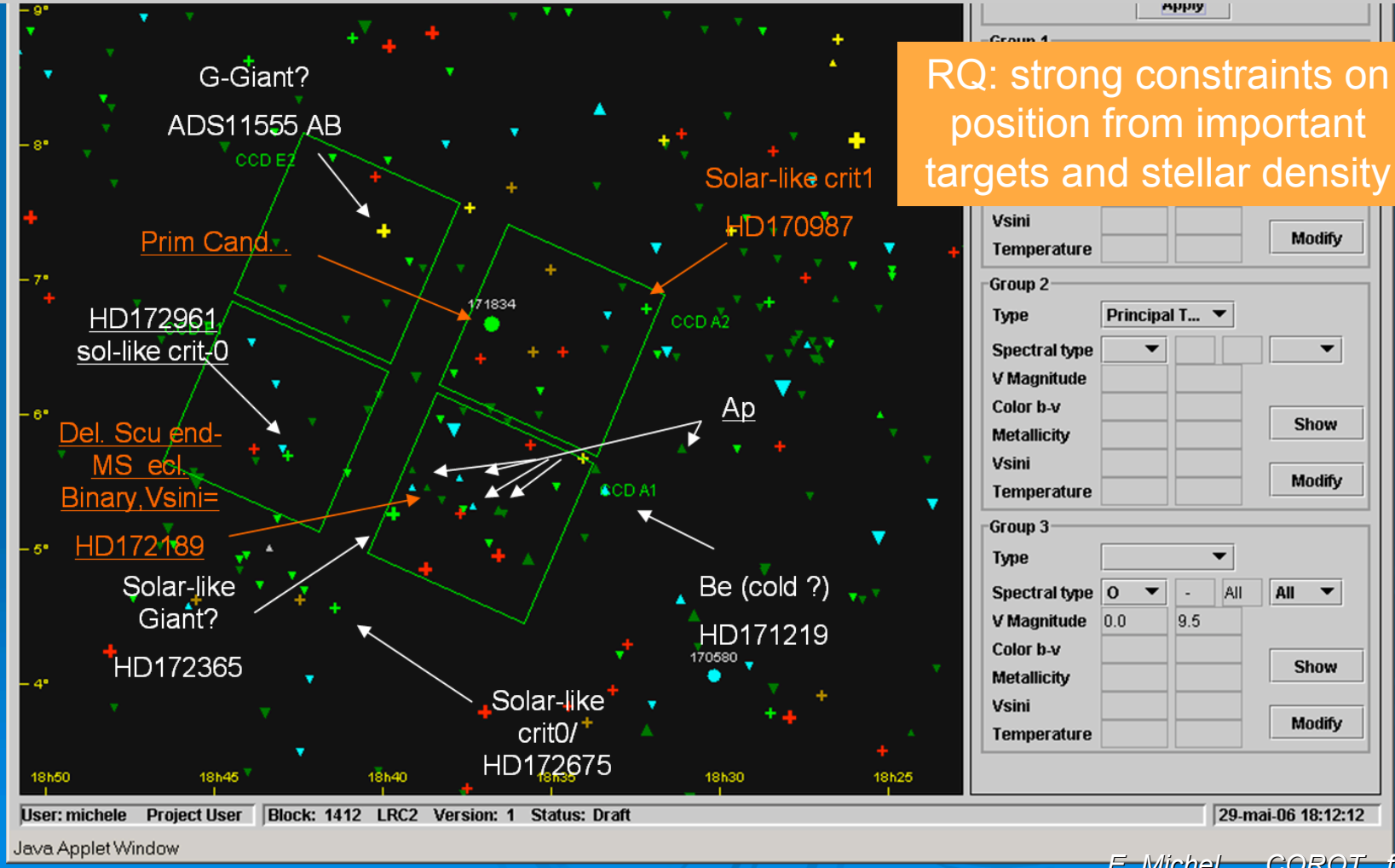


Fields evaluation – CW10

Long Run LRC2

RA=18:39:03 (279.762 °) DEC=+6 16 12 (6.27 °) ROT= 18.24 ° ROLL= 23.60 °

proposal



RQ: strong constraints on position from important targets and stellar density

Fields evaluation – CW10

Long Run LRC2

RA=18:39:03 (279.762 °) DEC=+6 16 12 (6.27 °) ROT= 18.24 ° ROLL= 23.60 °

with this proposed position, we could get the following selection

Block: LRC2 Id: 1412.3 Last update: 2006-05-29 16:31:24
Catalogue: Non-specified User: michele Current date: 2006-05-30 17:39:41
Creation date: 29/05/2006

CCD A1

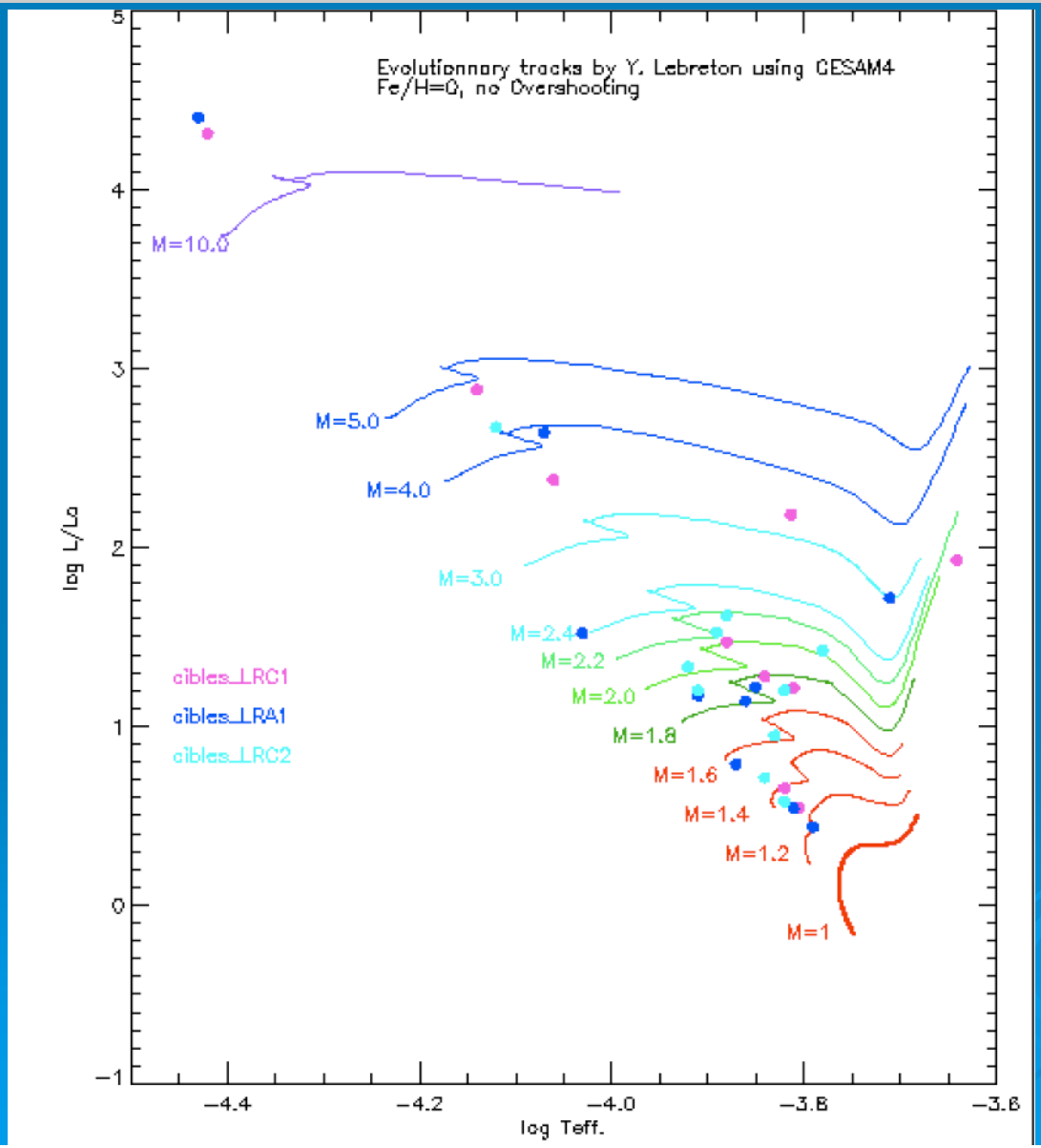
Priority	C Id	Name	m_V	SpT	M_V	log(Teff)	Vsin(i)	Parallax	Star type	SCA0
0	8170	HD 172189	8.73	A 2.0	0.9	3.89			Delta Scuti, Eclipsing binary	
1	8158	HD 171586	6.46	A 2.0	1.4	3.92	38.1	9.74	Ap star	X
2	8310	HD 172046	6.63	B 8.0	-1.06	4.12		3.35		X
3	8366	HD 171996	9.33	A 0.0	1.72	3.91				
4	8321	BD+05 3855	9.35	F 5.0	2.36	3.83				
5	8324	HD 171442	8.57	F 8.0	2.34	3.81		5.68		
6	8164	HD 172102	9.38	A 0.0	1.77	3.89				
7										
8										
9										

CCD A2

Priority	C Id	Name	m_V	SpT	M_V	log(Teff)	Vsin(i)	Parallax	Star type	SCA0
0	8567	HD 171834	5.45	F 3.0 V	2.94	3.84	72.1	31.53	Principal Target	X
1	8786	HD 170987	7.5	F 5.0	3.29	3.82	20.6	10.75		X
2	8441	HD 171538	9.34	A 3.0	1.73	3.82	143.4			
3	8647	HD 171218	9.08	A 5.0	0.66	3.88				
4	8494	HD 171537	8.83	F 8.0	1.22	3.78				
5	8714	HD 171194	8.82	B 9.0	1.21	3.88				
6										
7										
8										
9										

Fields evaluation – CW10

Long Run LRC1+LRA1+LRC2

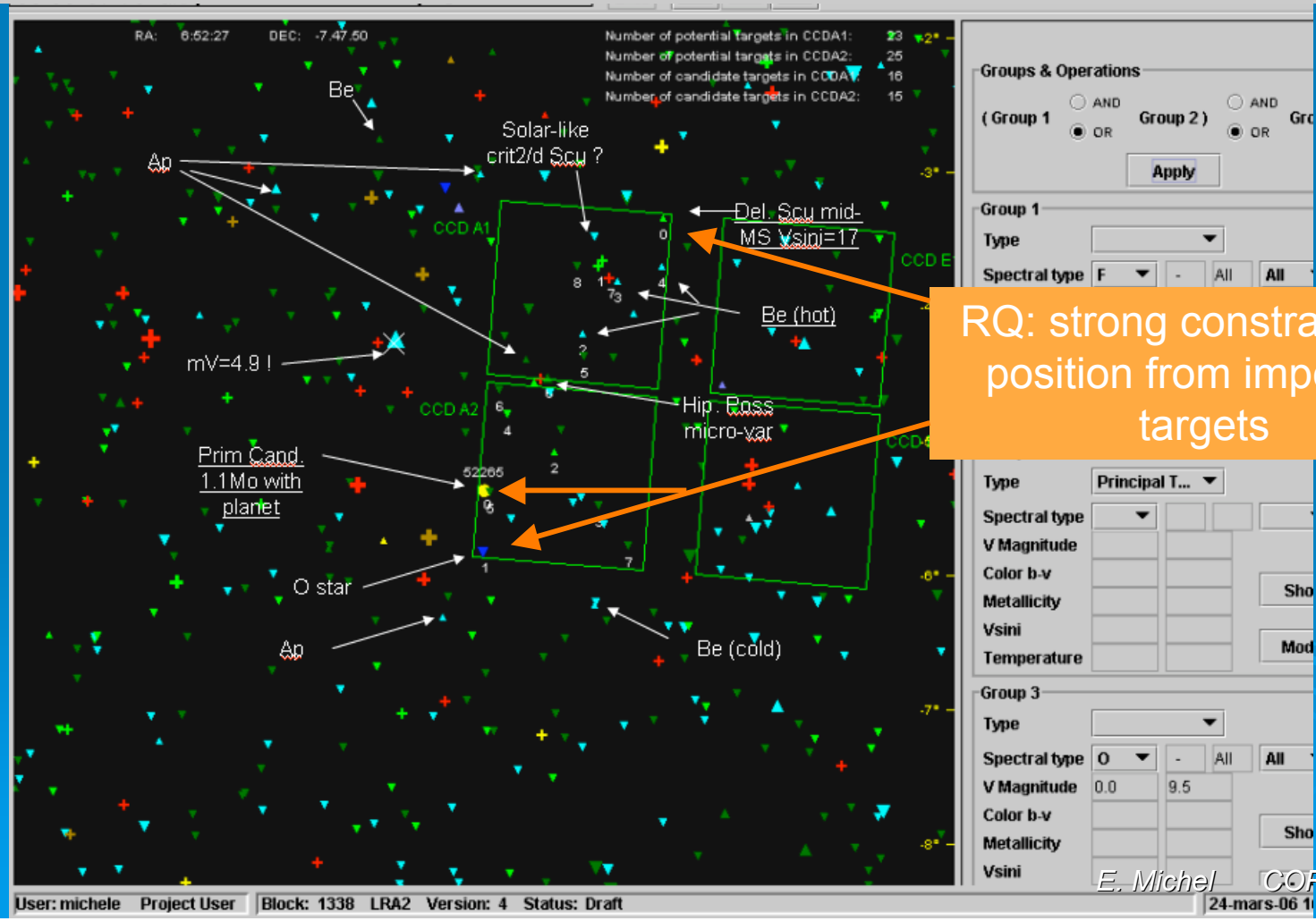


Fields evaluation – CW10

Long Run LRA2

RA=6:54:20 (103°.583) DEC=-4°.39 ROT=10° Roll= +4.64°

proposal



RQ: strong constraints on position from important targets

Fields evaluation – CW10

Long Run LR2A

RA=6:54:20 (103°.583) DEC=-4°.39 ROT=10° Roll= +4.64°

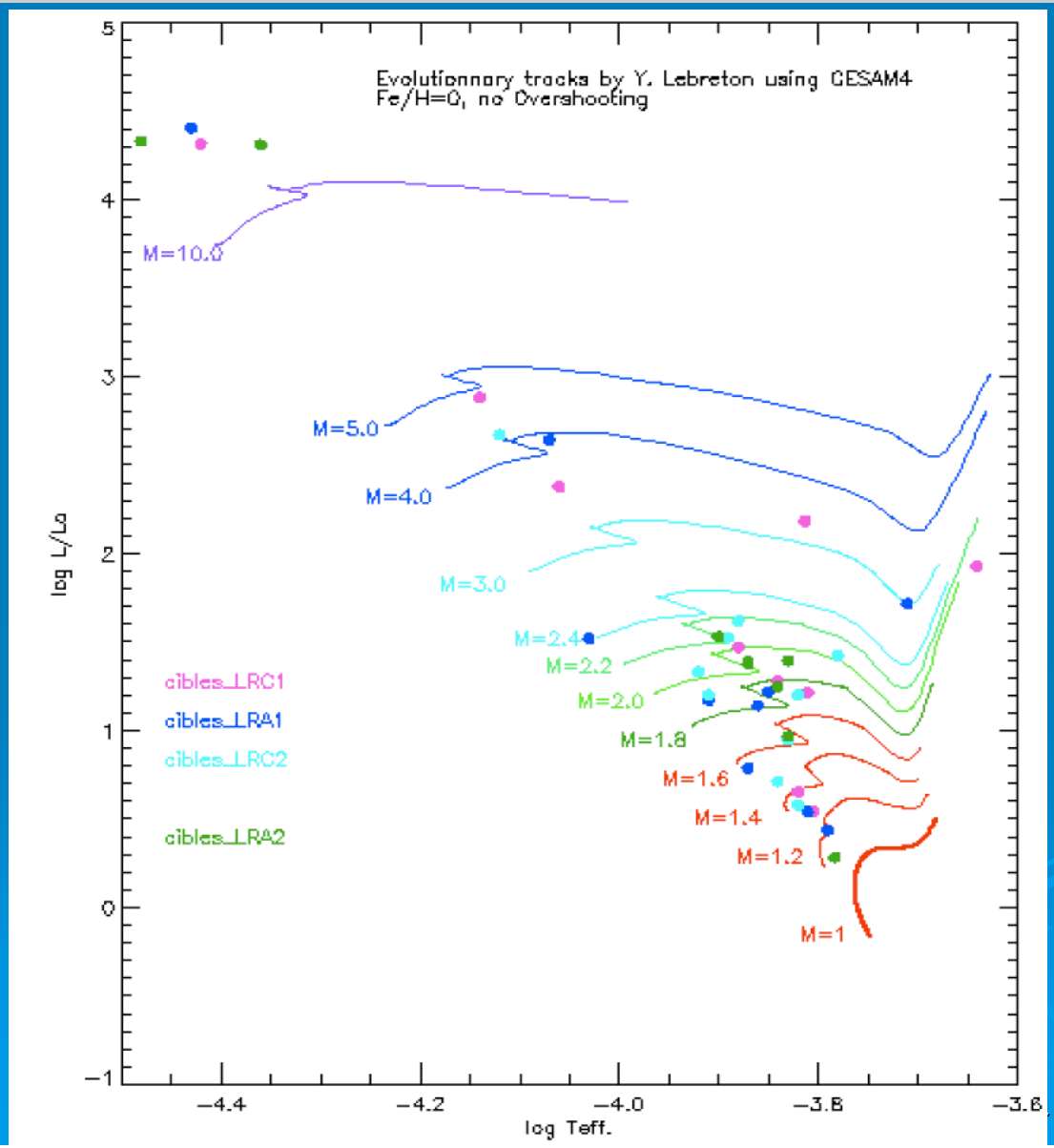
with this proposed position, we could get the following selection

CCD A1										
Priority	C Id	Name	m_v	SpT	M_v	log(Teff)	Vsin(i)	Parallax	Star type	SCAO
0	546	HD 50870	8.88	F 0.0	1.67	3.88	17.1		Delta Scuti	
1	692	HD 51332	7.12	F 0.0	2.31	3.83	23.6	10.91		X
2	871	HD 51452	8.11	B 0.0 III	-3.88	4.48			Be star	X
3	714	HD 51193	8.22	B 1.0 V	-3.72	4.36		1.27	Be star, Hipparcos unsolved variable	X
4	650	HD 50891	8.85	B 0.0	1.24	3.87	295.0		Be star	
5	937	HD 51453	9.25	A 2.0	1.64	3.92				
6	1022	HD 51722	7.53	A 5.0	1.13	3.86	127.8	4.83	Hipparcos possible microvariable	
7	718	HD 51279	7.97	K 5.0	7.54	3.64	6.9	0.83		X
8	731	HD 51509	8.71	A 0.0	1.1	3.82				
9										

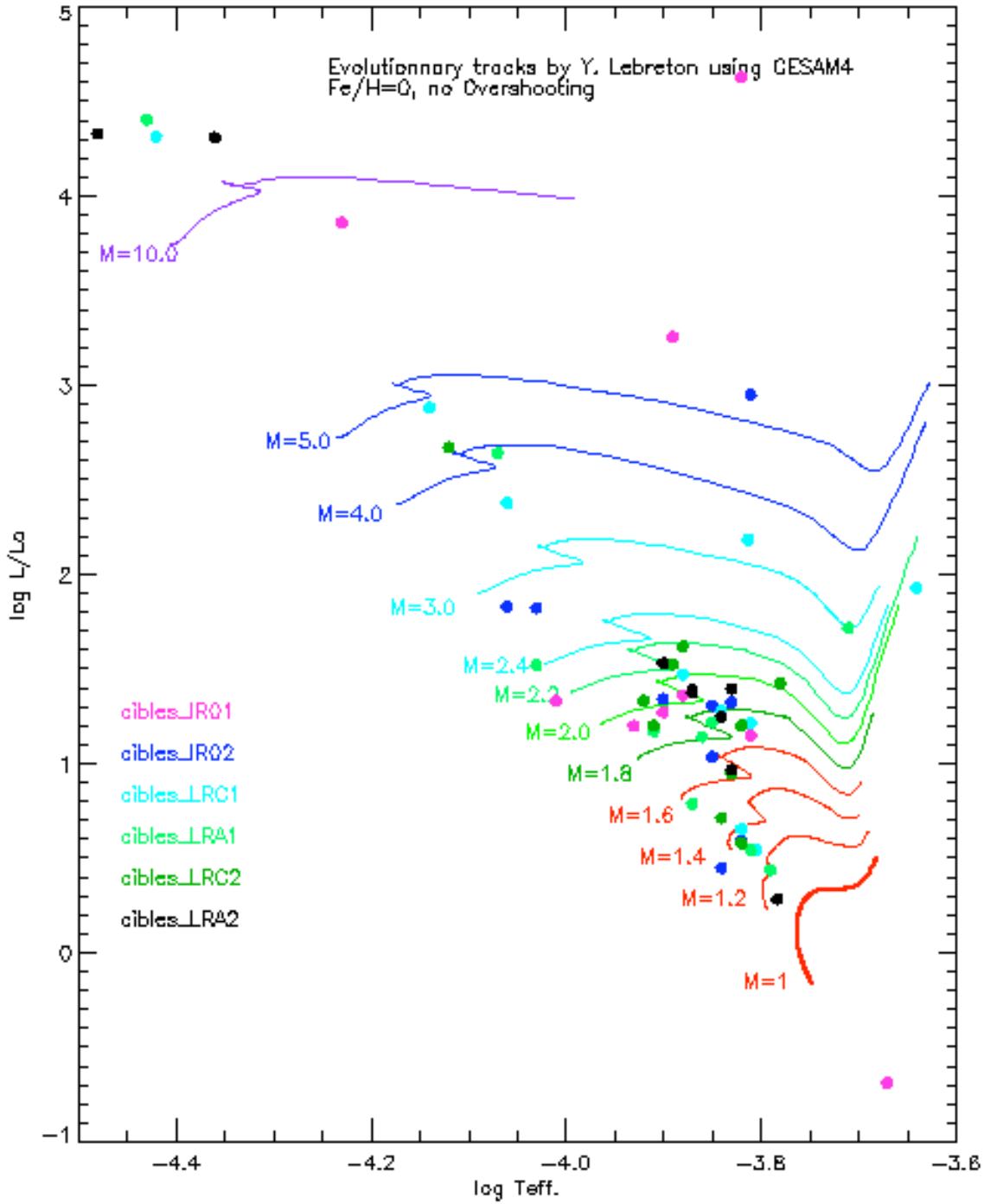
CCD A2										
Priority	C Id	Name	m_v	SpT	M_v	log(Teff)	Vsin(i)	Parallax	Star type	SCAO
0	1426	HD 52265	6.3	G 0.0 III-IV	4.06	3.79	7.0	35.63	Principal Target, Star with exo-planets	X
1	1614	HD 52266	7.18	O 9.0 V	-5.29	4.52		2.06		
2	1199	HD 51673	8.69	F 0.0	1.6	3.84		3.6	Hipparcos unsolved variable	
3	1320	HD 51359	8.5	A 5.0	0.89	3.9				X
4	1154	HD 52047	8.85	F 2.0	1.24	3.83				
5	1424	HD 52208	8.8	A 0.0	1.19	3.91	64.4			
6	1098	HD 52130	9.13	A 2.0	1.52	3.92				
7	1435	HD 51152	9.23	A 0.0	1.62	3.94				
8										
9										

Fields evaluation – CW10

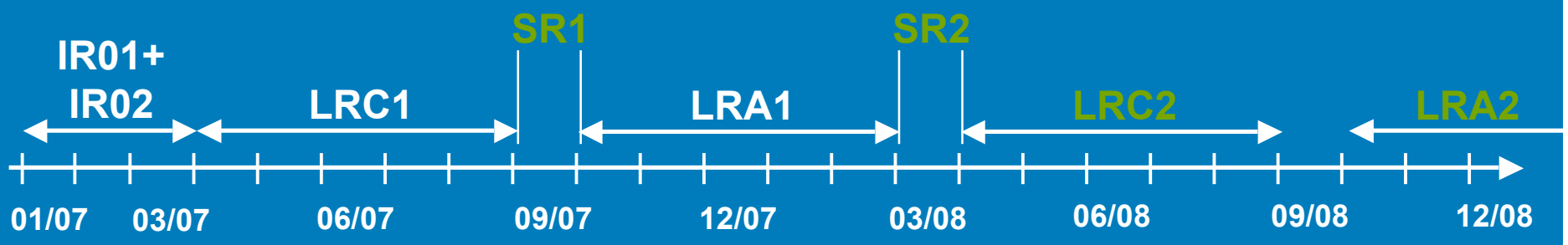
Long Run LRC1+LRA1+LRC2+LRA2



all up to LRa2



Short runs: core/additional programme



proposal

- 1st short run, centre direction: core programme
- 2nd short run, anticentre direction: additional programme

Short run evaluation process: CW10

Several proposals in discussion:

- ANTICENTRE: *mostly 'western' fields so far…*

- Field with O stars (cf Conny Aerts, CW9 ESTEC)+ HD46375 K star with a planet (Add. Programme)

- Field with IM Mon brightest beta Lyr ecl. binary in CoRoT eyes (involving potential a beta Cep and a SPB) + HD45168 bright G9III (cf Joris de Ridder)

- …

- CENTRE: *focusing on 'eastern' fields to be pointed before drift …*

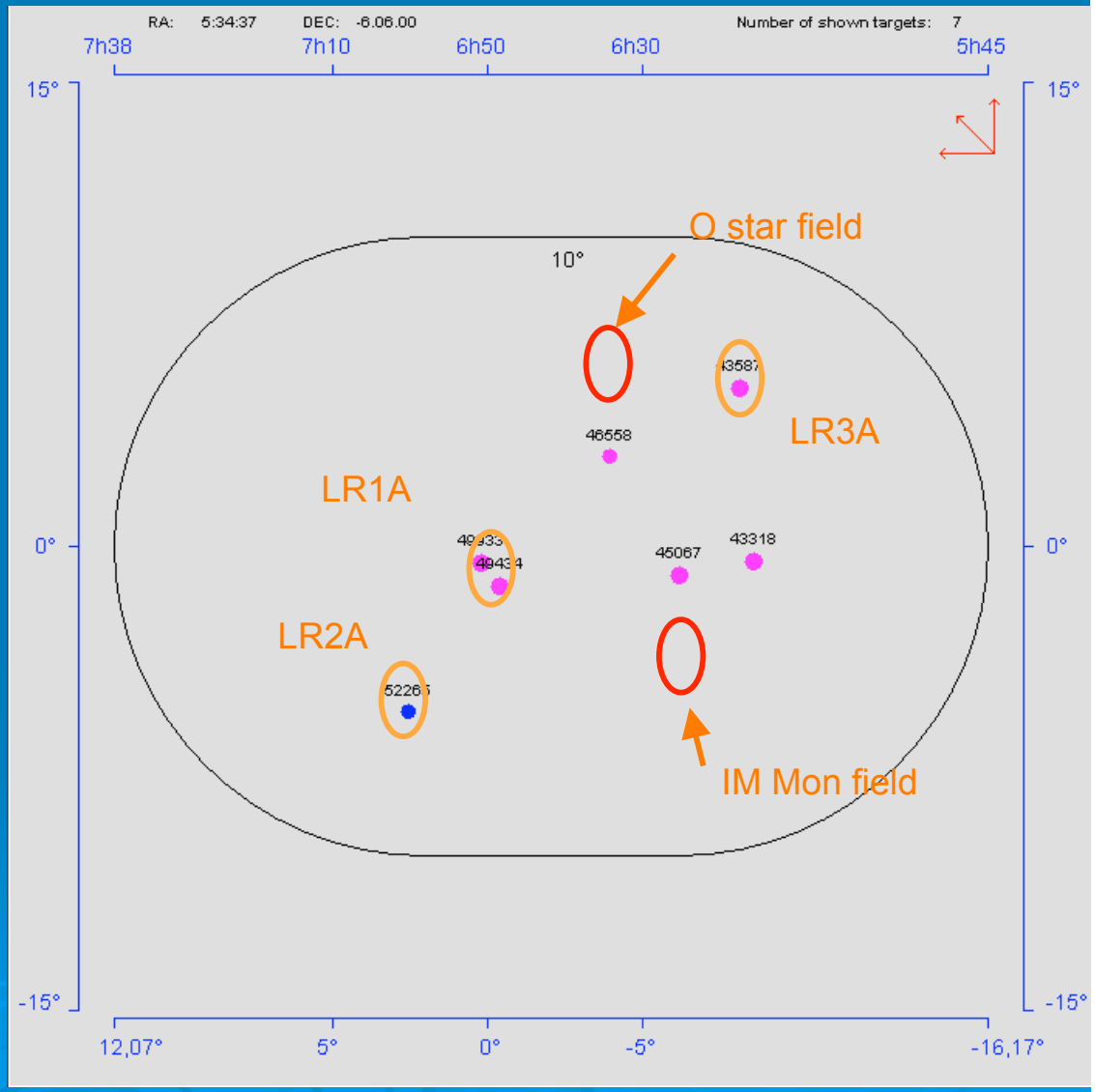
- Field around HD183324 (lambda Boo star)

- HD174166 (d Scu)+175337(G Dor)

- …

Short runs: Anticentre

- mostly ‘western’ fields proposed



Short runs: Centre

- **Starting with 'eastern' fields**

-long run discarded candidates

- Selecting:

- F to M stars with V<8

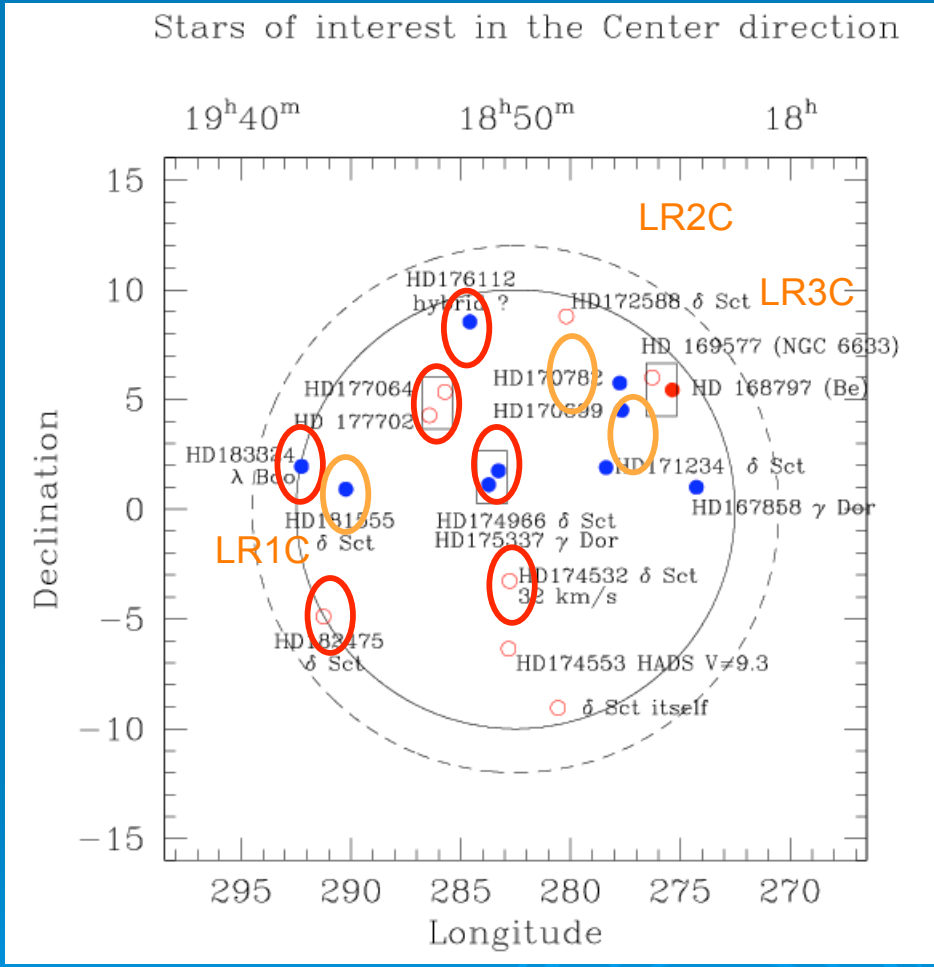
- stars with 'startype'

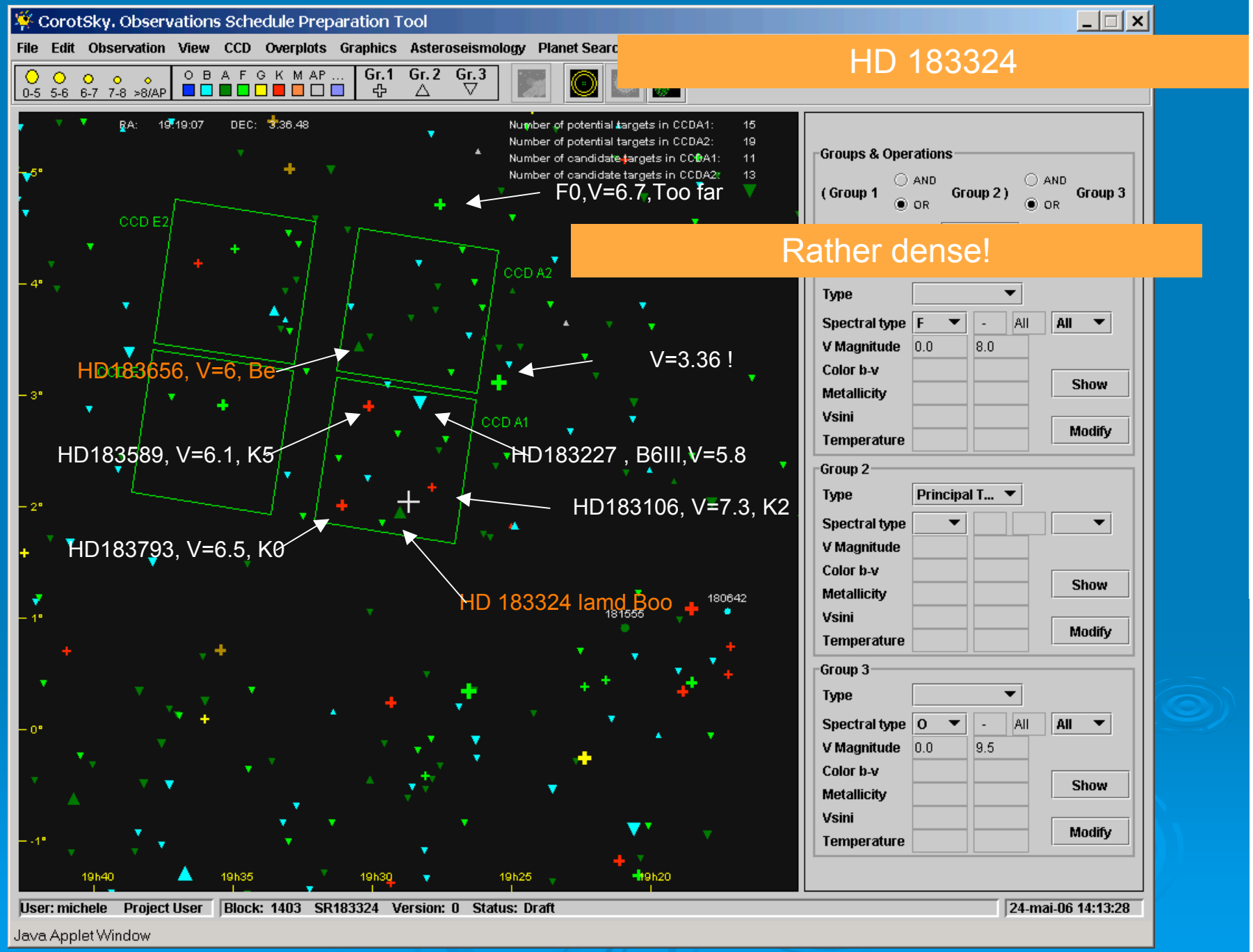
- O to F stars with V<9.5

20d too short

for solar-type oscillations:

concentrate on hotter stars




CorotSky. Observations Schedule Preparation Tool
File Edit Observation View CCD Overplots Graphics Asteroseismology Planet Searc
HD 183324
Rather dense!
RA: 19:19:07 DEC: 3:36.48
Number of potential targets in CCDA1: 15
Number of potential targets in CCDA2: 19
Number of candidate targets in CCDA1: 11
Number of candidate targets in CCDA2: 13
F0,V=6.7,Too far
CCD E2
CCD A2
CCD A1
HD183656, V=6, Be
V=3.36 !
HD183589, V=6.1, K5
HD183227 , B6III,V=5.8
HD183106, V=7.3, K2
HD183793, V=6.5, K0
HD 183324 lamd Boo
180642
181555
19h40
19h35
19h30
19h25
19h20
Groups & Operations
(Group 1
AND
OR
Group 2)
Group 3
Type
Spectral type F
V Magnitude 0.0 8.0
Color b-v
Metallicity
Vsini
Temperature
Show
Modify
Group 2
Type Principal T...
Group 3
Spectral type O
V Magnitude 0.0 9.5
User: michele Project User
Block: 1403 SR183324 Version: 0 Status: Draft
24-mai-06 14:13:28
Java Applet Window

Asteroseismology Proposal Document - Netscape

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http://internet1-ci.cst.cnes.fr:8882/users/1405_0_130

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Asteroseismology Pro...

A/F content HD 183324

Block: SR183324 Id: 1405.0 Last update:

Catalogue: Non-specified User: michele Current date: 2006-05-26 13:38:49

Creation date:

CCD A1										
Priority	C Id	Name	m_V	SpT	M_V	log(Teff)	Vsin(i)	Parallax	Star type	SCAO
0	9397	HD 183018	9.04	F 8.0	1.57	3.8				
1	9567	HD 183368	9.23	F 0.0	1.47	3.89				
2	9772	HD 183815	9.23	F 0.0	3.08	3.85				
3	9547	HD 183463	9.36	F 8.0	1.27	3.81				
4	9406	HD 183060	9.03	A 2.0	1.42	3.86				
5	9485	HD 183324	5.8	A 0.0 V	1.95	3.97	101.7	16.95	Delta Scuti, Lambda Bootis	X
6										
7										
8										
9										

CCD A2										
Priority	C Id	Name	m_V	SpT	M_V	log(Teff)	Vsin(i)	Parallax	Star type	SCAO
0	9583	HD 182922	8.14	F 5.0	3.5	3.82				X
1	9483	HD 182834	9.3	F 8.0	1.69	3.77				
2	9427	HD 182766	8.89	F 6.0 V	5.99	3.79		3.66		
3	9448	HD 182994	9.46	F 2.0	0.33	3.85				
4	9610	HD 183086	8.19	A 0.0	0.58	3.99				X
5	9582	HD 183087	8.7	A 0.0	1.09	3.92		1.72		
6	9383	HD 182740	8.06	A 2.0	1.31	3.9		4.46	Hipparcos unsolved variable, Binary	
7	9661	HD 183265	8.0	A 0.0	0.88	4.02		4.85		X
8	9786	HD 183563	9.21	A 0.0	1.6	3.81				
9	9809	HD 183656	6.06	A 0.0	-5.11	4.24	275.0	3.39	Be star, Hipparcos unsolved variable	X

Asteroseismology Proposal Document - Netscape

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Asteroseismology Pro...

Other content HD 183324

Block: SR183324 Id: 1405.2 Last update:

Cataloque: Non-specified User: michele Current date: 2006-05-26 13:47:36

Creation date:

CCD A1

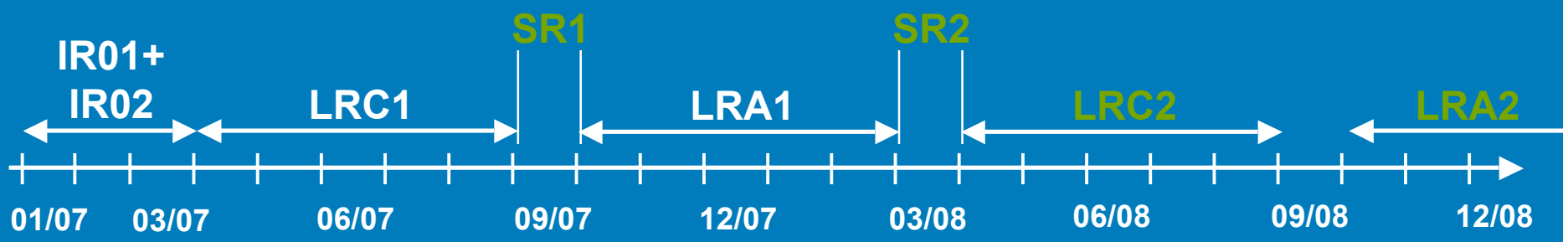
Priority	C Id	Name	m_V	SpT	M_V	log(Teff)	Vsin(i)	Parallax	Star type	SCAO
0	9524	HD 183227	5.84	B 6.0 III	-1.77	4.15	57.3	3.18		X
1	9641	HD 183590	9.21	B 9.0	1.6	3.95				
2	9715	HD 183589	6.08	K 5.0 I	7.34	3.62	9.4	1.96	Hipparcos unsolved variable	X
3	9399	HD 183105	7.26	K 2.0	0.13	3.47		3.75		X
4	9721	HD 183793	6.53	K 0.0	-0.91	3.53		3.25		X
5										
6										
7										
8										
9										

CCD A2

Priority	C Id	Name	m_V	SpT	M_V	log(Teff)	Vsin(i)	Parallax	Star type	SCAO
0	9731	HD 183226	9.04	B 9.0	1.43	3.98				
1	9878	HD 183734	8.41	B 5.0	0.8	3.98		1.14		
2	9432	HD 182844	8.39	B 8.0	0.78	3.98				X
3										
4										
5										
6										
7										
8										
9										

CCD A2

Conclusion – CW10



- LRC2: around HD171834 as discussed and proposed by SWG, accepted by ECO and CS (CS18), preliminary position and target proposal to be made at CW10
- LRA2: position and targets discussed and proposed by SWG, to be confirmed by ECO and accepted by SC19
- Short Runs:

1st short run belongs to core programme, 2nd short run to AP

- Anticentre: several proposals discussed among SWG
- Centre: field HD183324 (lambda Boo star)