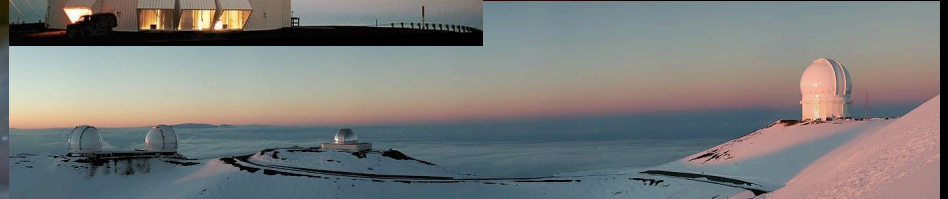
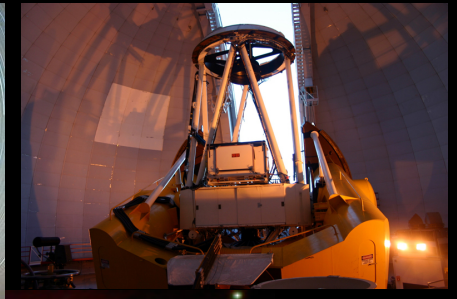
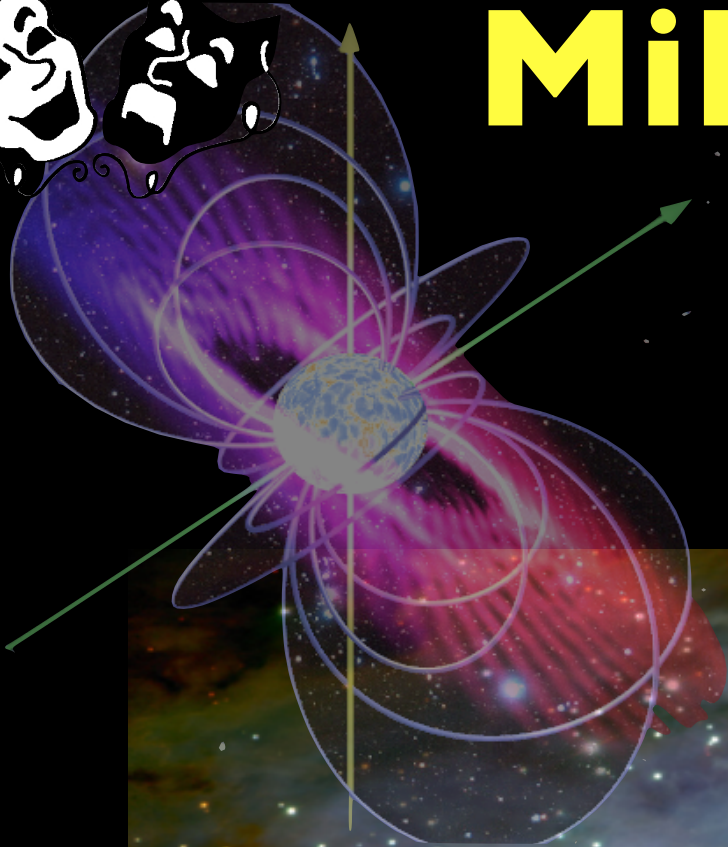




# MiMeS Magnetism in Massive Stars



A Large Programme  
with ESPaDOnS @ CFHT

# MiMeS Overview

- Canada-France-Hawaii (CFH) 3.6m telescope
- ESPaDOnS spectropolarimeter
- 643 hours requested
  - 207 + 50 hours for the "Targeted Component"
  - 386 hours for the "Survey Component"
- One of four proposals selected from 12
  - Full requested time allocated
  - To be distributed from 2008B - 2012B (9 semesters)
  - Sharing bright time with 1 additional LP (MAPP - Donati et al.) and PI proposals

# MiMeS Overview

- Four primary science objectives
  - Physics of fossil magnetic fields
  - Interaction of stellar winds with magnetic fields
  - Role of magnetic fields in modifying stellar rotation
  - Magnetism and stellar evolution
- Observational constraints
- Testing of theory
- Development of new models

# MiMeS Overview

- **Co-Investigators**

- **Canada:** Alecian, E. (RMC) , Bohlender, D. (NRC) , Braithwaite, J. (CITA), de la Chevrotiere, A. (Montreal) , Drissen, L. (Laval) , Fontaine, G. (Montreal) , Fullerton, A. (STScI) , Grunhut, J. (RMC), Landstreet, J. (UWO) , Likuski, K. (RMC), Manset, N. (CFHT) , Michaud, G. (Montreal), Moffat, A. (Montreal) , Petit, V. (Laval) , Robert, C. (Laval) , Silvester, J. (RMC) , St. Louis, N. (Montreal) , Wade, G. (RMC)
- **France:** Auriere, M. (OMP), Boehm, T. (OMP), Bouret, J.-C. (LAM), Catala, C. (LESIA), Donati, J.-F. (OMP), Hui Bon Hoa, A. (OMP), Lignieres, F. (OMP), Martins, F. (GRAAL), Montmerle, T. (LAG), Neiner, C. (GEPI)
- **Other countries:** Bagnulo, S. (Armagh Obs., UK), Cohen, D. (Swarthmore Coll., USA), Folsom, C. (Armagh Obs., UK), Gagne, M. (West Chester U., USA), Henrichs, H. (Ast. Inst. Am., Netherlands), Howarth, I. (UCL, UK), Ignace, R. (E. Tenn. State U., USA), Kaper, L. (Ast. Inst. Am., Netherlands), Kendrick, B (Armagh Obs., UK), Kochukhov, O. (Uppsala U., Sweden), Kuhn, J. (UH, Hawaii), Lanz, T. (U. Maryland, USA), Oksala, M. (U Delaware, USA), Owocki, S. (U Delaware, USA), Townsend, R. (Bartol RI, USA), Vink, J. (Armagh Obs. UK), ud Doula, A. (Morrisville College, USA), Walborn, N. (STScI, USA)

# CFHT/ESPaDOnS

- Instrumentation at CFHT and a typical semester
  - 3 CFHT facility instruments: MegaPrime, WIRCam and ESPaDOnS
  - About 160 queue nights available, but...
    - Instruments are mounted for 1-4 week runs
    - ESPaDOnS is mounted several times / semester
    - ESPaDOnS yield rate is ~7.5 hours/mean night
- 4 ESPaDOnS runs (41 nights) scheduled in 2008B
  - Aug (7 nights), Oct (7), Dec (15), Jan (12)
  - Dec run will be almost entirely consumed by MAPP

# Issues to be discussed

	Monday	Tuesday	Wednesday	Thursday	Friday
9:00 AM	Organisation and Introduction (Wade)	Silvester: Magnetic Doppler Imaging of Ap stars	Henrichs: NARVAL observations of xi Per	de la Chevrotiere: Magnetic fields in WR stars	Long-term planning, roles and responsibilities
9:45 AM	Bohlender: He peculiar stars	Owocki: Magnetosphere models	Petit: Magnetic fields, winds and X-rays of massive stars	St. Louis: Models of fields in WR stars	DISCUSSION
10:30 AM	COFFEE				
11:00 AM	Oksala: Compendium of magnetic massive stars	ud Doua: MHD models of magnetospheres	Bagnulo & Folsom: Database of magnetic measurements of hot stars	Alecián: Archive, pipelining, assessment, distribution, etc.	Planning, detailed target list for 2008 B
11:45 AM	Power: Volume limited study of magnetic Ap stars	Silvester: The MiMeS Targeted Component	Discussion	DISCUSSION	DISCUSSION
12:30 PM	LUNCH		LUNCH		(END OF WORKSHOP)
1:45 PM					
2:00 PM	Bagnulo: Polarimetry: basic principles, observing strategies, data reduction		Alecián: Herbig Be stars	Henriksen: Initial conditions for magnetically fossil stars	
2:45 PM	Monin: DAO instruments		Grunhut: Spectroscopic temperatures for Herbig stars	Landstreet: Observations of peculiar stars in open clusters	
3:30 PM	COFFEE		COFFEE		
4:00 PM	Petit/Grunhut: The MiMeS Survey Component		Bohlender: Archival and supplementary data	Wade: Why are there so few magnetic A (and B and O) stars?	
4:45 PM	DISCUSSION		DISCUSSION	Madura: Magnetic fields in eta Car	
5:30 PM					
Evening		Live music & Fireworks (Canada Day)		Dinner @ Gregg's	