



39th Liège International Astrophysical Colloquium: The Multi-Wavelength View of Hot, Massive Stars

Liège, 12 - 16 July 2010

<http://www.ago.ulg.ac.be/PeM/Coll/Liac39/>

Programme

Monday 12 July 2010

- 08:15 – 09:00 Registration
09:00 – 09:30 Welcome
09:30 – 10:00 Coffee break
Session 1: Stellar winds, diagnostics across the electromagnetic spectrum (Chair: Gustavo Romero, Villa Elisa)
10:00 – 10:40 **Theory of stellar winds – Stan Owocki (Delaware)**
10:40 – 11:20 **UV, optical and near-IR diagnostics of massive stars – Fabrice Martins (Montpellier)**
11:20 – 11:40 3-D radiative transfer modeling of structured winds in massive hot stars with Wind3D – Alex Lobel (Brussels)
11:40 – 12:00 A proper description of clumping in hot star winds: The key to obtaining reliable mass-loss rates? – Jon Sundqvist (Munich)
12:00 – 13:45 Lunch
13:45 – 14:25 **X-rays, clumping and wind structures – Lida Oskinova (Potsdam)**
14:25 – 15:05 **Radio observations of massive stars – Ronny Blomme (Brussels)**
15:05 – 15:25 Massive stars in polarized light – Jennifer Hoffman (Denver)
15:25 – 15:45 Is macroturbulent broadening in OB supergiants related to pulsations? – Sergio Simon-Diaz (La Laguna)
15:45 – 16:10 Coffee break and poster session
16:10 – 16:30 Mass loss from the most massive stars: a multi-wavelength view on the central part of 30 Dor – Götz Gräfener (Armagh)
16:30 – 16:50 The most luminous stars in the Galaxy and the Magellanic Clouds – Wolf-Rainer Hamann (Potsdam)
16:50 – 17:10 Pulsations in Wolf-Rayet stars: observations with MOST – André-Nicolas Chené (Herzberg)
17:10 – 17:30 General X-ray properties of hot, massive stars – Yaël Nazé (Liège)
17:30 – 18:00 General discussion Session 1 (Coordinator: Joachim Puls, Munich)
18:30 Reception at the Town Hall (offered by the city of Liège)

Tuesday 13 July 2010

- Session 2: Massive star formation, confronting theory and observation** (Chair: You-Hua Chu, Urbana)
09:00 – 09:40 **Long-wavelength (mid-IR to mm) studies of massive star formation – Henrik Beuther (Heidelberg)**
09:40 – 10:00 The radiation pressure barrier in the formation of massive stars – Rolf Kuiper (Heidelberg)
10:00 – 10:20 Evidence for disks around young high-mass stars – Rolf Chini (Bochum)
10:20 – 10:50 Coffee break and poster session
10:50 – 11:30 **The multi-wavelength review of the 30 Dor starburst cluster and giant H II region – Hans Zinnecker (Stuttgart)**
11:30 – 11:50 Multiple populations of massive (proto-)stars in cluster forming complexes – Simon Clark (Milton Keynes)
11:50 – 12:10 Physical properties and evolutionary stages of massive young stellar objects in the Large Magellanic Cloud – Rosie Chen (Charlottesville)
12:10 – 13:50 Lunch
13:50 – 14:30 Poster viewing session
14:30 – 14:50 A near IR imaging survey of high and intermediate-mass young stellar outflow candidates – Suzanne Ramsay (ESO)
14:50 – 15:20 General discussion Session 2 (Coordinator: Allan Willis, London)

Session 3: Evolution and interaction of massive stars with their environment (Chair: Kerstin Weis, Bochum)

- 15:20 – 16:00 **Evolution of single massive stars with special emphasis on the LBV and RSG phase – Georges Meynet (Genève)**
- 16:00 – 16:30 Coffee break and poster session
- 16:30 – 16:50 Mixing of CNO-cycled matter in massive stars – Norbert Przybilla (Bamberg)
- 16:50 – 17:10 Rotational mixing in massive stars, more puzzling than ever! – Ines Brott (Utrecht)
- 17:10 – 17:30 Evolution of massive Be and Oe stars at low metallicity towards the long gamma-ray bursts – Christophe Martayan (ESO)
- 17:30 – 17:50 The supergiant sequence in Westerlund 1 and the nature of B hypergiants – Ignacio Negueruela (Alicante)
- 17:50 – 18:10 A hidden population of massive stars with circumstellar shells discovered with the Spitzer Space Telescope – Stefanie Wachter (Pasadena)
- 18:30 – 20:00 Visit of the AMOS workshops and reception (offered by AMOS)

Wednesday 14 July 2010

- 09:00 – 09:40 **Feedback from massive YSOs and massive main-sequence stars – You Hua Chu (Urbana-Champaign)**
- 09:40 – 10:00 A multi-dimensional study of circumstellar nebulae around massive stars – Allard Jan van Marle (Leuven)
- 10:00 – 10:20 A search for ejecta nebulae around Wolf-Rayet stars using the SHS H α survey – David Stock (London)
- 10:20 – 10:50 Coffee break and poster session
- 10:50 – 11:30 **Circumstellar Matter around evolved massive stars – Nathan Smith (Berkeley)**
- 11:30 – 11:50 The nebulae around LBVs: a multi-wavelength approach – Grazia Umana (Catania)
- 11:50 – 12:20 General discussion Session 3 (Coordinator: Nicole St-Louis, Montréal)
- 12:20 – 13:20 Lunch (sandwiches)
- Excursions or free afternoon

Thursday 15 July 2010

Session 4: Future instrumentation and its application to massive star research (Chair: Jean-Pierre Swings, Liège)

- 09:00 – 09:40 **Massive star research within the ELT era – Chris Evans (Edinburgh)**
- 09:40 – 10:00 Spectroscopic madness – a golden age for amateurs – Thomas Eversberg (Bonn)
- 10:00 – 10:20 Studying massive stars with the International X-ray Observatory – Gregor Rauw (Liège)
- 10:20 – 10:45 Coffee break and poster session
- 10:45 – 11:00 General discussion Session 4 (Coordinator: Jean-Pierre Swings, Liège)

Session 5: Massive binaries: interaction and evolution (Chair: Michaël De Becker, Liège)

- 11:00 – 11:40 **Signatures of binary evolution processes in massive stars – Dany Vanbeveren (Brussels)**
- 11:40 – 12:00 The role of rotation on the evolution of massive stars in close binaries – Selma de Mink (Utrecht)
- 12:00 – 14:00 Lunch
- 14:00 – 14:40 Poster viewing session
- 14:40 – 15:00 Solving light curves of WR + O binaries: a regularization approach – Igor Antokhin (Moscow)
- 15:00 – 15:20 How massive are the most massive stars? – Olivier Schnurr (Potsdam)
- 15:20 – 15:50 Coffee break and poster session
- 15:50 – 16:30 **Theoretical models of interacting winds in massive binaries – Julian Pittard (Leeds)**
- 16:30 – 16:50 Multiwavelength study of the runaway binaries HD14633 and HD15137 – Virginia McSwain (Lehigh University)
- 16:50 – 17:10 Understanding the non-thermal emission arising in the massive O-star binary Cyg OB2 #5 – Sean Dougherty (DRAO)
- 17:10 – 17:50 **Results of the 2009 multi-wavelength campaign on eta Carinae – Mike Corcoran (GSFC)**
- 17:50 – 18:10 Multi-wavelength diagnostics of massive binary interaction in eta Carinae – Jose Groh (Bonn)
- 19:00 Conference Dinner at the Société Littéraire

Friday 16 July 2010

- 09:00 – 09:40 **Results of the 2009 multi-wavelength campaign on WR140 – Peredur Williams (Edinburgh)**
09:40 – 10:00 3D modelling of massive star binary systems eta Carinae, WR22 and WR140 – Ross Parkin (Liège)
10:00 – 10:30 Coffee break and poster session
10:30 – 10:50 Cygnus OB2 : a laboratory for massive binaries, runaway stars, and triggered star formation – Chip Kobulnicky (Laramie)
10:50 – 11:10 Multiplicity of O-type stars in the young open cluster NGC2244 and the Mon OB2 association – Laurent Mahy (Liège)
11:10 – 11:30 The massive binary population of the starburst cluster Westerlund 1 – Benedict Ritchie (Milton Keynes)
11:30 – 12:00 General discussion Session 5 (Coordinator: Margaret Hanson, Cincinnati)
12:00 – 12:30 Concluding remarks – Doug Gies (Atlanta)