

# Hot and Cool: Bridging Gaps in Massive Star Evolution

Final Program, updated 3 November 2008

## SUNDAY, 9 November

5:30 - 7:30 Reception (Pasadena Hilton Hotel)

## SCIENTIFIC PROGRAM - Beckman Institute Auditorium, Caltech

## MONDAY, 10 November

### Session I. EVOLUTIONARY CONNECTIONS

Chair: Gloria Koenigsberger

8:30	5	George Helou	Welcome to Caltech and IPAC
8:35	5	Pat Morris	LOC Welcome
8:40	10	Claus Leitherer	Introduction
8:50	35	Phil Massey	Census of massive stars across the HRD: what we know and what we do not
9:25	35	Raphael Hirschi	Stellar evolution in the upper HRD
10:00	20	Danny Lennon	Properties of B-type supergiants in the Milky Way, LMC and SMC
10:20	20	Alceste Bonanos	Survey of the most massive stars in the local Universe
10:40	30		MORNING COFFEE/TEA BREAK
11:10	35	Norbert Langer	The stars in between: Blue Supergiants and the Circumstellar Medium
11:45	30	Ben Davies	Young massive clusters as probes of massive stellar evolution
12:15	25	Alex Heger	Pre-SN evolution of massive stars
12:40	90		LUNCH AND POSTER VIEWING

### Session II. LATE AND END PHASES

Chair: Emily Levesque

14:15	20	Ariane Lançon	Constraints on red supergiant evolution from star clusters
14:35	35	Nathan Smith	Mass-loss and pre-SN evolution of massive stars
15:10	20	Schuyler Van Dyk	Explosions of LBV and post-LBV stars
15:30	20	José Prieto	A new class of luminous transients and first census of their progenitors
15:50	30		AFTERNOON COFFEE/TEA BREAK
16:20	25	Douglas Leonard	Observational clues on SN progenitors
16:45	20	Sung-Chul Yoon	Progenitor stars of Type Ib/c SN in close binary systems
17:05	20	Nancy Elias-Rosa	Progenitors of Recent core-collapse SN
17:25	20	Maryam Modjaz	SN 2008D//X-ray transient 080109: Death of a stripped-envelope massive star

## TUESDAY, 11 November

Chair: Alceste Bonanos

### Session II'. SPECIAL

8:30	20	Bill Latter	<i>Herschel</i> opportunities for studies of the FIR/sub-mm environments around evolved stars
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### Session III. ATMOSPHERES

8:50	35	Emily Levesque	The physical properties of red supergiants
9:25	35	John Hillier	Basic parameters of hot massive stars
10:00	35	Bertrand Plez	Model Atmospheres for cool massive stars
10:35	30		MORNING COFFEE/TEA BREAK
11:05	20	Norbert Przybilla	Tepid supergiants: chemical signatures of stellar evolution & the extend of blue loops
11:25	20	Lazlo Kiss	CHARA/MIRC interferometry of red supergiant stars: hotspots, diameters and effective temperatures
11:45	20	Maria-Fernanda Nieva	High precision determination of stellar parameters & chemical abundances in early B-type stars
12:05	20	Matteo Cantiello	Convection zones in the envelope of hot, massive stars
12:25	95		LUNCH AND POSTER VIEWING

		<i>Chair: Norbert Przybilla</i>
14:00	30	Graham Harper
14:30	25	Alex Lobel
14:55	25	General Discussion
15:20	30	AFTERNOON COFFEE/TEA BREAK

#### Session IV. MASS LOSS

15:50	35	Stan Owocki	Hot star mass loss mechanisms: winds and outbursts
16:25	20	Gloria Koenigsberger	Asynchronous rotation in binaries and the case of the erupting WR/LBV system HD 5980
16:45	20	José Groh	Hot and cool: on the nature and evolution of stellar and wind parameters of the prototype LBV AG Car
17:05	20	Jon Mauerhan	WR/O binaries near the galactic center
17:25	20	Francesca Valsecchi	M33 X-7, The first eclipsing black hole X-ray binary

**WEDNESDAY, 12 November**

#### Session IV. MASS LOSS (continued)

*Chair: Maria-Fernanda Nieva*

8:30	25	Claud Leitherer	Empirical mass loss across the HRD
8:55	35	Phil Bennett	Empirical constraints on modeling RSG winds
9:30	20	Cian Crowley	Winds from cool evolved stars

#### Session IV. INTERACTING WINDS AND CIRCUMSTELLAR ENVIRONMENTS

9:50	35	Isabelle Cherchneff	Dust formation in massive stars and their explosive ends
10:25	30	MORNING COFFEE/TEA BREAK	
10:55	25	Roberta Humphreys	
11:20	20	John Monnier	
11:40	25	Rens Waters	
12:05	20	Sabina Chita	
12:25	95	LUNCH AND POSTER VIEWING	

*Chair: Nathan Smith*

14:00	25	Ciska Kemper	Mineralogy and as evolutionary clock
14:25	20	Pat Morris	WR and SN progenitor stars in embedded sites of recent star birth and death
14:45	35	Jacco van Loon	Effects of RSG mass loss on SN ejecta and their circumburst medium
15:25	20	Nolan Walborn	Age Paradigms for Massive Young Clusters
15:55	30	AFTERNOON COFFEE/TEA BREAK	
16:15	60	Poster Presentations	
17:15	30	Open Discussion/Round Table	
17:45	5	Conclusion	

#### Social Activity

**THURSDAY, 13 November**

#### Mount Wilson Observatory Excursion

11:30	Depart Pasadena Hilton
~16:30	Return from Mt. Wilson