

Circumstellar Dynamics at High Resolution

February 27th - March 02nd, 2012

Foz do Iguaçu, Brazil

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*           First Announcement  
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*           Workshop  
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*           Circumstellar Dynamics at High Resolution  
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*           Foz do Iguaçu, Brazil, February 27 - March 02, 2012  
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*           ESO - Univ. of São Paulo  
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This is the first announcement of a conference on "Circumstellar Dynamics at High Resolution" to be held February 27 to March 02, 2012. The venue of the meeting will be in Foz do Iguaçu, Brazil.

The Workshop is sponsored by ESO and the University of São Paulo. More detailed information is available on our web page:

<http://www.eso.org/sci/meetings/2012/csdyn.html>

or by email to csdyninfo@eso.org.

We encourage you to circulate the announcement among your colleagues.

On behalf of the organizers,
Alex Carciofi

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*** SCOPE ***

The dynamics of circumstellar (CS) envelopes is an active research frontier that has benefited greatly from the advent of high-resolution observational techniques in the spectral, spatial and temporal domains. The observational discoveries and theoretical results emerging from this field have broad implications for many astrophysical topics, ranging from cosmology (via a better understanding of the progenitors of GRBs, for instance), to star and planet formation (through a better description of CS disk dynamics in which viscosity plays a key role).

The diverse and complex CS environments revealed by these observational techniques are particularly evident near hot high-mass stars, where stellar radiation plays a large if not crucial role in continuously shaping the immediate environment.

High-resolution observations (spatial, spectral, and temporal) have provided important information in several frontline research topics. For example, many hot stars have been shown to be very rapidly rotating, in a regime where geometric deformation and gravity darkening become important. CS structures have not only been resolved spatially, but have been followed over characteristic variation timescales. This dynamical evolution has been modeled for disks and winds: we are now directly observing and measuring the consequence of the physical mechanisms operating within the CS environments. As a result, current observing facilities have allowed the field to progress from a static picture of the CS environment towards understanding its dynamics and concomitant impact on the evolution of the central star.

This workshop aims at bringing together the active community of hot stellar astrophysics, both theoreticians and observers, along the common topic of what can be learned from high resolution observations.

*** PROGRAM ***

Oral sessions during the meeting will be held on:

- 1) Circumstellar Disks & Outflows: Theory
- 2) Circumstellar Disks & Outflows: Observations
- 3) Delta Sco and Be stars as laboratories for CS disk physics
- 4) Dynamics of Circumstellar Material and tidal interactions in hot binaries
- 5) Massive star formation out of a dynamic environment
- 6) Magnetospheres of Hot Stars

*** VENUE ***

The workshop will take place in Foz do Iguaçu, Brazil, close to the magnificent Iguaçu Waterfalls, a network of 275 waterfalls in the Iguaçu River that lies in the border of Brazil and Argentina. The site was designated World Heritage by UNESCO. Tourist attractions include visits to both the Brazilian and Argentinian sides of the Falls, natural parks, and the dam of the Itaipu Hydroelectric Facility. In 1994, the American Society of Civil Engineers elected the Itaipu Dam as one of the seven modern Wonders of the World.

The Meeting will take place in the Rafain Hotel and Convention Centers (<http://www.rafainpalace.com.br/v2/home/>). Special rates are available for the period of the conference. Hotel costs are 274 BRL (170 USD) for single occupancy and 171 BRL (106 USD) per person for double occupancy. Those rates include full board (breakfast, morning coffebreak, lunch, afternoon coffebreak and dinner).

IMPORTANT NOTE: all participants are encouraged to register in this hotel for two reasons. First, those low rates will only be secured if a minimum of 50 rooms is booked. Second, the hotel is far from the city (10km) and there are no restaurants nearby.