

A Conference Organised by the ING on the Nature of V838 Monocerotis and Its Spectacular Light Echo

The ING is organising a conference on “The Nature of V838 Mon and Its Light Echo”, that will be held from May 16th to 19th, 2006, in the Hotel H10 Taburiente Playa in the beach resort of Los Cancajos, near Santa Cruz de la Palma.

The outburst of V838 Monocerotis was discovered in 2002, and has been one of the major hits in stellar astrophysics in recent years. The object is the most studied member of an exciting class of rare objects undergoing tremendous stellar explosions, so powerful as to make V838 Mon at peak brightness one of the most luminous stars in the whole Local Group (at $M_V = -10$ mag). During and after the outburst, V838 Mon displayed a complex light curve and spectral evolution. In spite of large ejection velocities at the outburst onset (~ 500 km/sec), the ejecta never reached optically thin conditions, and became cooler and cooler with time, and finally entering the new realm of L-type supergiants, a spectral type never seen before in the Universe and characterised by temperatures so low that were previously measured only in brown dwarfs.

Besides this, V838 Mon became one a major attraction in stellar astrophysics by displaying a bright circumstellar light-echo, the first one seen in our Galaxy in the last 70 years (see the image in the accompanying poster). HST soon started imaging the light-echo evolution, providing spectacular images that appeared even on the front cover of *Nature* (issue number 422, 2003), and will continue the monitoring in the next seasons.

Little consensus has been reached so far on the nature and causes of the outburst of V838 Mon. The interpretations published in the literature cover a wide range of possibilities such as the swallowing of giant planets, merging of the components of a binary star, surface helium flash in a highly evolved and very massive star and a highly degenerate hydrogen flash in a low mass, cool and very slowly accreting white dwarf.

Given the many important questions opened by the intensive study of V838 Mon in the last three years, a conference dedicated to the subject is planned for May 16–19, 2006, in La Palma. The conference aims to bring together researchers interested in V838 Mon and related stars,

CONFERENCE ON
The Nature of V838 Mon and Its Light Echo
 16 - 19 May 2006, La Palma, Canary Islands, Spain

Scientific Organising Committee:
 Nagarhalli Ashok
 Howard Bond
 Romano Corradi
 Silvano Desidera
 Aneurin Evans
 Arne Henden
 Tonu Kipper
 Ulisse Munari
 Noam Soker
 Sumner Starrfield
 Oscar Straniero
 Jacco van Loon
 Patricia Whitelock

Local Organising Committee:
 Romano Corradi
 Pierre Leisy
 Margaret Lennon
 Javier Méndez
 Ulisse Munari
 Miguel Santander
 Alessandro Siviero

Topics:
 Photometric, spectroscopic and polarimetric evolution
 The evolution of the light echo: circumstellar and interstellar medium, distance
 Structure and evolution of mass loss at early phases
 The cool phase: L-supergiant, chemistry
 Pre-outburst properties, the progenitor
 Nature and evolutionary status of the erupting component
 The B3V companion
 Models for the outburst
 Related objects (M31-RV, V4332 Sgr)

More information: <http://www.ing.iac.es/conferences/v838mon/>
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Image credit: NASA and The Hubble Heritage Team (AURA/STScI). Poster design: Javier Méndez

in light-echos, in the atmospheres and chemistry of cool giant stars, in circumstellar cocoons, in the latest evolutionary stages of very massive stars and in the various alternative scenarios proposed to account for the unique properties of V838 Mon and its associates. One main goal of the conference is to compare observational evidence and theoretical interpretations, so as to gain a better understanding of the V838 Mon phenomenon. Another objective is to foster cooperation and coordination of future observational and modelling efforts, both concerning its still active outburst phase and in view of the return to quiescence conditions in the years to come.

The organisers of the conference and co-chairs of the scientific organising committee are Romano Corradi, from the ING, and Ulisse Munari, from the Osservatorio Astronomico di Padova, Italy. Financial support will be provided by the ING, the Spanish Ministerio de Educación y Ciencia, the Excmo. Cabildo Insular de La Palma, and the Patronato de Turismo de La Palma.

More information is provided on the conference web page at:
<http://www.ing.iac.es/conferences/v838mon/>. □

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