

Second Circular

From Cooling to Explosion: The Physics of White Dwarfs

**An International Workshop dedicated to Margarita Hernanz
on the occasion of her 60th birthday**

Tossa de Mar (Girona), Catalonia
June 14-16, 2017



Dear Participants,

this is the second (and last) announcement on the forthcoming workshop “From Cooling to Explosion: the Physics of White Dwarfs”.

More than 40 participants have accepted the invitation from the LOC and will gather in Tossa on the occasion of Margarita Hernanz’s 60th birthday, to discuss a wide range of topics, including cooling and crystallization of white dwarfs, collapse vs. explosion, the white dwarf luminosity function, the effect of mass-accretion on white dwarfs, shell flashes, type Ia supernovae vs. classical novae, nucleosynthesis and nuclear reactions, X- and gamma-ray emission...

The final Scientific program of the workshop is enclosed at the end of this Circular, and is also available at the Conference webpage, www.fen.upc.edu/users/jjose/Hernanzfest.html.

EARLY REGISTRATION AND TRANSPORTATION

A registration desk will be available at the IEEC headquarters (C.Gran Capità, 2, 08034 Barcelona; <http://www.ieec.cat/ieec/location/>) on **June 14th**, from **4pm to 6pm**. Buses will depart in front of the IEEC building (**June 14th**) at **6pm**, as indicated in the program.

Those that prefer to reach Tossa by themselves will be able to register on site, on June 15th, from 8:30am to 9am. There is a regular bus service (operated by SARFA) that connects Barcelona (and its airport), as well as Girona's airport, with Tossa de Mar. Please, check the following webpage for schedules, details and prices:

https://compras.moventis.es/paginas/resultados_trayectos.php [english version available].

- **From Barcelona's airport, terminal 1 [June 14]**

Departure	Arrival
7:50	10:05
10:50	13:05
12:50	15:05
16:50	19:05
18:50	21:05
20:50	23:05

- **From Girona airport [June 14]**

Departure	Arrival
10:00	10:55
14:30	15:25

- **From Barcelona city**, there are 2 departure stops (Estació del Nord and Ronda St Pere). The estimated duration of the trip is 1hr 20min.

Departure (Estació del Nord)	Departure (Ronda St. Pere)
8:15	18:30
8:45	21:00
10:30	
11:45	
12:30	
13:15	
13:45	
17:45	
18:15	
19:45	
20:45	
21:45	

The Conference Busses will depart from Tossa at **5:30pm** on **June 16th**, and will stop at Plaça Catalunya (downtown Barcelona) and at Barcelona's airport. Those leaving Tossa de Mar on their own should check SARFA's webpage for information on available busses and schedules.

CONFERENCE VENUE AND ACCOMODATION

As already indicated in the First Circular, the workshop will take place at **Hotel Reymar** (<http://www.hotelreymartossa.com>), a 4-star hotel located in the charming village of **Tossa de Mar**, about 100 km north-east of Barcelona (see https://en.wikipedia.org/wiki/Tossa_de_Mar, for more information).



At this stage, all attendees should have transferred the corresponding registration fees (also for the accompanying persons), that cover full board accommodation. The Conference Secretaries are contacting individually all participants these days with last minute issues related to such registration fees (including acknowledge receipts).

We look forward to meet you soon at the Hernanzfest!

Jordi José, on behalf of the Organizing Committee

ORGANIZING COMMITTEE

Anna Bertolín (IEEC, Barcelona)
Laura Delgado (ICE-CSIC, IEEC, Bellaterra)
Jordi Isern (ICE-CSIC, IEEC, Bellaterra)
Jordi José (UPC, IEEC, Barcelona)
Nataly Ospina (ICE-CSIC, IEEC, Bellaterra)
Glòria Sala (UPC, IEEC, Barcelona)

FROM COOLING TO EXPLOSION: THE PHYSICS OF WHITE DWARFS

Final Program

Wednesday, June 14

18:00: Buses leave Barcelona [from the IEEC Headquarters] to Tossa

20:30: Dinner at the Hotel Reymar

Thursday, June 15

9:00 – 10:40 White Dwarfs: Cooling and Explosion

9:00-9:25 **Maurizio Salaris** (Liverpool) – White dwarfs in globular clusters: present and future

9:25-9:50 **Enrique García-Berro** (Barcelona) – White dwarf cooling: now and then

9:50-10:15 **Domitilla De Martino** (Naples) – Magnetic accreting white dwarfs

10:15-10:40 **Domingo García-Senz** (Barcelona) – Surface detonations in rotating white Dwarfs

10:40 – 11:15 Coffee Break

11:15 – 13:20 Novae and Cataclysmic Variables (I)

11:15-11:40 **Sumner Starrfield** (Tempe) – Contributions of Margarita Hernanz to Theoretical studies of classical novae

11:40-12:05 **Mike Bode** (Liverpool) – RS Ophiuchi: the many faces of a remarkable nova

12:05-12:30 **Matt Darnley** (Liverpool) – The remarkable recurrent novae!

12:30-12:55 **Mike Shara** (New York) – An HST ultraviolet survey for rapidly recurring novae in M87

12:55-13:20 **Alain Coc** and **Nicolas de Séréville** (Orsay) – Nuclear Physics aspects of nova nucleosynthesis

13:20 – 15:30 Lunch & Break

15:30 – 17:35 Novae and Cataclysmic Variables (II)

15:30-15:55 **Vincent Tatischeff** (Orsay) – Novae as particle accelerators

15:55-16:20 **Julian Osborne** (Leicester) – Overview of SWIFT observations of novae

16:20-16:45 **Kim Page** (Leicester) – Recent highlights of SWIFT observations of novae

16:45-17:10 **Alessandro Ederoclite** (Teruel) – Cataclysmic variables in narrow-band, wide-field photometric surveys

17:10-17:35 **Solen Balman** (Ankara) – Reanalysis of high-resolution XMM-Newton data of V2491 Cygni using hot/warm absorber models

17:35 – 18:05 Coffee Break

18:05 – 19:20 Neutron stars, Magnetars and Pulsars

18:05-18:30 **Nanda Rea** (Bellaterra) – The neutron star zoo

18:30-18:55 **Diego Torres** (Bellaterra) – Of magnetars and nebulae
18:55-19:20 **Manuel Linares** (Barcelona) – Compact binary millisecond pulsars

20:30 – 21:30 Dinner

21:30 – 22:30 Special session “Hernanzfest”

Friday, June 16

9:00 – 11:05 Gamma-rays

9:00-9:25 **Jurgen Knödlseher** (Toulouse) – The future of gamma-ray astronomy
9:25-9:50 **Peter von Ballmoos** (Toulouse) – Instruments for gamma-ray emission
9:50-10:15 **Mark Leising** (Clemson) – When will classical nova gamma-ray lines be detected?
10:15-10:40 **Roland Diehl** (Garching) – Gamma-ray line constraints on white dwarf astrophysics
10:40-11:05 **Robert Mochkovitch** (Paris) – 1992-2017: 25 years of GRB Physics

11:05 – 11:35 Coffee Break

11:35 – 12:50 Astrophysical Instrumentation

11:35-12:00 **Søren Brandt** (Kongens Lyngby) – All-sky and wide field X- and gamma-ray monitors: a historical overview
12:00-12:25 **José Luis Galvez** (Bellaterra) – Towards the X-ray and gamma-ray nuclear instrumentation for Astrophysics
12:25-12:50 **José Manuel Alvarez** (Salamanca) – A laser-driven source to reproduce the space radiation environment

13:00 – 15:00 Lunch & Break

15:00 – 16:15 Novae... and anti-novae

15:00-15:25 **Jan-Uwe Ness** (Madrid) – What we can and cannot learn from X-ray grating spectra of supersoft sources
15:25-15:50 **Martin Henze** (Barcelona) – Breaking the habit: the peculiar 2016 eruption of the remarkable nova M31N 2008-12a
15:50-16:15 **Pablo Rodríguez-Gil** (Santa Cruz de Tenerife) – Anti-novae: probing the Invisible

16:15 – 16:30 Concluding remarks

Mike Shara (New York)

17:30 Buses leave from Tossa toward Barcelona (stops: Barcelona Pl. Catalunya and Barcelona’s airport)