

Joint
Eighteenth International Conference on
HIGH PRESSURE
SEMICONDUCTOR PHYSICS
&
Second International Workshop on
HIGH PRESSURE
STUDY OF SUPERCONDUCTORS



July 23 - 27, 2018
CosmoCaixa Museum
Barcelona
Spain

First Announcement

About the conference

The Eighteenth International Conference on High Pressure Semiconductor Physics (HPSP18) is a satellite of the International Conference on the Physics of Semiconductors (ICPS 2018) to be held in Montpellier, France, during the first week of August. The International Workshop on High Pressure Study of Superconductors (WHS2) will merge with HPSP series for the second time in Barcelona, after

the success of the first joint meeting in Tokyo in 2016. The aim of HPSP18&WHS2 is to bring together young and experienced researchers from different fields to meet during a single-session conference for the exchange of ideas, dissemination and discussion of their latest results in research areas dealing with the application of high pressure and other forms of stress to study both semiconductors and superconductors. The HPSP18&WHS2 conference will review the latest advances and developments of both bulk and nanostructured semiconductor and/or superconductor materials and devices using high pressure techniques, including advances in pressure-induced superconductivity, novel materials, design of high pressure apparatus, and other related topics. Finally, by bringing together scientists in semiconductor and superconductor high pressure physics, we expect to create new synergies, strengthening activities in both research areas.

HPSP is a biennial meeting with a long-standing tradition. The first two meetings took place in Poland (1985) and Montpellier (1986) as a Polish-French Meeting on High Pressure Applications in Semiconductors. The success of these early conferences made it clear that the topic of high-pressure semiconductor physics attracted a great interest. Consequently, in 1988 the series was convened under its present name, being organized as a satellite of the traditional International Conference on the Physics of Semiconductors (ICPS series). HPSP conferences were held in:

- HPSP3, Tomazów, Poland (1988)
- HPSP4, Porto Caras, Greece (1990)
- HPSP5, Kyoto, Japan (1992)
- HPSP6, Vancouver, Canada (1994)
- HPSP7, Schwäbisch Gmünd, Germany (1996)
- HPSP8, Thessaloniki, Greece (1998)
- HPSP9, Sapporo, Japan (2000)
- HPSP10, Guildford, UK (2002)
- HPSP11, Berkeley, USA (2004)
- HPSP12, Barcelona, Spain (2006)
- HPSP13, Fortaleza, Brazil (2008)
- HPSP14, Changchun, China (2010)
- HPSP15, Montpellier, France (2012)
- HPSP16, Mexico City, Mexico (2014)
- HPSP17&WHS, Tokyo, Japan (2016)
- HPSP18&WHS2, Barcelona, Spain (2018)

Scope

Submissions of original work on topics including, but not limited to the following list, are solicited:

1. Electronic structure
2. Mechanical properties including vibrational, elastic and piezoelectric properties
3. Optical properties
4. Electrical transport phenomena in semiconductors & superconductors
5. Impurity and defect states
6. Structural studies including phase transitions
7. Magnetic diluted semiconductors & spin dependent properties
8. Thermoelectricity and thermal properties
9. Carbon-related semiconductors
10. Low-dimensional, layered & nanostructured materials
11. Superconducting materials & pressure-induced metallization and superconductivity
12. Organic & hybrid materials
13. Strongly correlated electron systems
14. Novel materials, structures and devices
15. New experimental or computational techniques



View of the Sagrada Família from the heights of Parc Güell

Schedule

There will be some plenary and/or invited talks devoted to review and include recent developments/findings in hot topics as well as talks of shorter duration and a poster

session providing ample opportunities for the exchange of ideas and discussions. It follows a tentative schedule of the conference:

- July 23 (Mo.) Arrival day & registration
- July 24 (Tu.) Morning: Opening session
- July 24 (Tu.) - July 27 (Fr.) Technical sessions
- July 26 (Th.) Late afternoon: Banquet
- July 27 (Fr.) Afternoon: Closing session

Venue

The HPSP18&WHS2 conference will be held at the *CosmoCaixa Museum*, which is the first interactive science museum in Spain. This space, inaugurated for the recreation and dissemination of science, would provide a unique and stimulating environment for all conference participants. The Museum is located approximately 10 km west of the Barcelona-El Prat International Airport and it is about 15 minutes (highly dependent on traffic) drive from downtown Barcelona and/or easily accessible by public transportation such as bus and train (FGC). Barcelona is within one hour drive from well-known tourist attractions such as the Montserrat or seashore cities like Sitges or Tossa de Mar.

More information on the facilities and their location of the CosmoCaixa Museum of Science are available at:

<https://obrasociallacaixa.org/en/ciencia/cosmocaixa/el-museo>



The CosmoCaixa museum

Accommodation

Accommodation is better available in hotels downtown Barcelona (although there are a few lodging possibilities near the museum). The CosmoCaixa can be reached by

bus: Lines H4, V13, V15, 22, 73, 75, 60 and 196, Generalitat trains (FCG): Line L7, CosmoCaixa-Av. Tibidabo station and Tramvia Blau. By road you have to take Exit 6 and 7 of the Ronda de Dalt ring road and parking at the Saba-CosmoCaixa parking right under the museum (from 7 am to 11 pm).

Climate

Weather at Barcelona in late July/early August could be hot and humid with daytime temperatures typically in the range of 25-31°C. In the evening the temperature drops only to 17-23°C. Coastal cities like Sitges can be cooler by ~5 °C or more than inland cities. It is usually chilly and windy at the top of the Montserrat even in summer.

Important Dates in 2018

March 23---Abstract Due

April 16--- Notification of Acceptance Sent

June 4--- Deadline for Early Registration

July 2 ----Deadline for cancellation with full refund

Organizing Committee

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Yoshiya UWATOKO, Uni. of Tokyo, Japan
Sotirios VES, Aristotle Uni. of Thessaloniki, Greece
Bernard A. WEINSTEIN, SUNY at Buffalo, USA

Further information

Conference updates will be posted at:

<https://congresses.icmab.es/hpsp18-whs2/>

For enquiries please contact:

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See you in Barcelona !