



# DIJON 2011

29 August – 2 September, 2011

<http://hrms2011.sciencesconf.org>



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D. SUGNY  
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N. ZVEREVA-LOETE

## Second Circular: March 2011

The Colloquium will be held at the "Faculté des Sciences Gabriel" of the "Université de Bourgogne", 6 bd. Gabriel, DIJON – FRANCE (approximately 20 mn by bus from the train station). The local organization will be undertaken by the "Laboratoire Interdisciplinaire Carnot de Bourgogne" (ICB).

All correspondence should be sent to the secretary of the local organizing committee:

**Mme Sandra KLEIN**

**Laboratoire Interdisciplinaire Carnot de Bourgogne, UMR 5209 CNRS-Université de Bourgogne**

9 av. A. Savary, BP 47 870, F-21078 DIJON Cedex – France.

Tel. : +33 3 80 39 60 23, Fax : +33 3 80 39 59 71, E-Mail : [hrms2011@sciencesconf.org](mailto:hrms2011@sciencesconf.org).

## Scientific Program:

There will be 10 invited lectures and 3 mini-symposia. Contributions, which will be presented as posters, will cover the fields of:

- High resolution rotational, vibrational, and electronic spectroscopy of molecules (radicals, ions, complexes, clusters, ...).
- Molecular dynamics.
- Theory assisting the prediction, simulation, and interpretation of spectra.
- New techniques for high-resolution spectroscopy.
- Applications to atmospheric sciences, astrophysics, planetology, combustion, gas phase biomolecules, metrology and fundamental physics, cold molecules, etc.

**PLEASE READ CAREFULLY THE FOLLOWING INSTRUCTIONS BEFORE REGISTERING!**

## Acknowledgments:

We wish to thank the following institutions for their contribution to the success of this conference: Ville de Dijon, Conseil Régional de Bourgogne, CNRS and Université de Bourgogne.

## WWW home page:

The conference has a home page on the World Wide Web with URL

<http://hrms2011.sciencesconf.org>

This page is used to provide up-to-date information.

## Deadlines:

- Deadline for final registration and submission of abstracts: **June 1<sup>st</sup> 2011**.
- Deadline for final reservation of accommodations: **June 1<sup>st</sup> 2011**.
- 3rd circular with meeting information: **July 2011**.

## Accommodations:

Single rooms are available in student dormitories within easy walking distance of the conference site. There is a limited number (around 100) "luxury" dormitory room with a private bathroom. Only the first registered people asking for such a room will obtain one.

Participants who prefer to stay in hotels should make the reservations themselves. For this purpose, a link to the official tourism office is available on the homepage of the colloquium (see below). However, these hotels may be located at some distance from the conference site. Hotel reservations should be made quite early, since September is a highly touristic period.

Meals will be available at the campus restaurant. During the conference there will be an excursion combined with a banquet, and excursions for accompanying persons.

For participants arriving on Saturday, we offer the possibility to have a student dormitory room for the night from Saturday August 27<sup>th</sup> to Sunday August 28<sup>th</sup>. There is no possibility to have breakfast on the campus on Sunday August 28<sup>th</sup> and on Saturday September 3<sup>rd</sup>, but there are some restaurants and shops nearby.

## Registration:

### PLEASE READ CAREFULLY THIS SECTION!

- ▣ Registration should be made **online only** at this address:  
<http://dr06.azur-colloque.cnrs.fr/pre-inscription.php?colloque=18&lang=en>
- ▣ This new system is provided by the CNRS and used for the first time. So we ask your indulgence since some problems could appear in some special cases.
- ▣ Once going to the above address, you are first asked for your coordinates. Please choose the correct "tarification" category (regular, student, invited speaker, ...).
- ▣ **The invited speaker category only concerns the list of people listed on page 3 of this circular.**
- ▣ Once you have done that, you will receive a confirmation e-mail bringing you to detailed choices and the payment page. Here you have to be **VERY CAREFUL!** You have to choose all the "supplements" to indicate the rooms and meals you want. **The free rooms and meals only concern invited speakers and local organizing committee members.**
- ▣ **Thus, please review carefully your choices before confirming. Your choice here is definitive. We cannot reimburse you in case of an error at this stage.**
- ▣ Do not forget to indicate if you are vegetarian.
- ▣ As before, there is the possibility to buy a cold evening meal for Sunday August 31<sup>st</sup>.
- ▣ Please note again, in case you stay in a campus room, that there will be no breakfast on the campus on Sunday August 28<sup>th</sup> and on Saturday September 3<sup>rd</sup>.

## Sightseeing tour and banquet:

On Wednesday, August 31<sup>st</sup>, the whole conference will move by bus to Besançon (100 km away from Dijon). In the morning, there will be a plenary session with invited speakers at the *Université de Franche-Comté*. In the afternoon, there will be a sightseeing tour at the *Citadelle* of Besançon. In the evening, there will be a conference banquet in a castle. More detail will be given in the Third circular.

## Social program for accompanying persons:

A social program will be organized for accompanying persons. It will consist of various sightseeing activities. More detail will be given later on the conference's web site.

## Poster sessions:

The poster sessions will take place in the Hall of the « Faculté des Sciences Gabriel ». A white board (1.5 m wide and 1 m high) will be available for each participant wishing to present his/her work.

## Abstracts:

Abstracts for the Colloquium must be submitted electronically as a text file formatted as a LaTeX source. Abstracts submitted in any other way WILL NOT be accepted.

We also recall that the only oral contributions to this conference are those of the invited speakers (see list on next page). All other contributions are to be presented as posters.

We have chosen this system in order to get a unified presentation for the DIJON 2011 abstract book. The EAS program is a modified version of the EMSS software created by Prof. T. A. Miller and Dr. S. Panov for the OSU Symposium on Molecular Spectroscopy. It was kindly provided to us by Prof. T. A. Miller from the Ohio State University (Columbus, Ohio, USA).

The abstract electronic submission system will be opened on April 15<sup>th</sup>, 2011.

The deadline for submission is June 1<sup>st</sup>, 2011.

We indicate below where to find all the necessary information needed to submit your abstract(s) for DIJON 2011. Please read the instructions carefully. Electronic abstract submission is a very simple process. You will only need to write a simple text (ASCII) file formatted in the correct way.

Note that there is no need for you to install LaTeX on your computer.

The instructions for electronic submission of abstracts can be found on the dedicated Web page,

<http://vesta.u-bourgogne.fr/hrms>

Be careful that before April 15<sup>th</sup>, this address still points to the program of the previous Dijon 2007 meeting.

## Amat-Mills Prize:

The 2011 Amat-Mills Award will be awarded to a young spectroscopist either working for a PhD or having completed it within the last 12 months (at the time of the meeting).

The award will consist of a diploma and the recipient will receive a selection of books.

The candidates must present a regular poster at the "22<sup>th</sup> Colloquium on High Resolution Molecular Spectroscopy" on their PhD work and assume the sole responsibility for the presentation during the entire session.

Applications are limited to one per research group and must be nominated by the PhD research supervisor who will briefly give the reasons for the nomination (1/2 page). This information, together with the start and expected end dates of the PhD, and a printed copy of the abstract of the poster to be selected for the competition, should be sent to the local organizer before June 1<sup>st</sup>, 2011.

The abstract itself must also be submitted as indicated above before June 1<sup>st</sup>, 2011.

## LIST OF INVITED SPEAKERS

(Titles are provisional)

### **Tucker CARRINGTON**

*Queen's University, Kingston, Ontario, Canada*

### **Pierre-François COHEUR**

*ULB, Bruxelles*

### **Athena COUSTENIS**

*LESIA, Meudon, France*

### **Wolfgang ERNST**

*Technische Universität Graz, Austria*

### **Marsha LESTER**

*University of Pennsylvania, Philadelphia PA, USA*

### **David PARKER**

*Radboud University of Nijmegen, Netherlands*

### **Nathalie PICQUE**

*ISMO, Orsay, France*

### **Stephan SCHLEMMER**

*Universität zu Köln, Germany*

### **Guy WEBER**

*ICB, Dijon, France*

### **Hans Jakob WOERNER**

*ETH Zürich, Switzerland*

A new contracted-basis iterative method for computing high  $J$  ro-vibrational levels of polyatomic molecules: new results for methane.

Atmospheric composition measurements with the IASI hyperspectral sounder: local to global.

The neutral atmospheric chemistry on Titan.

Spin Resonance Spectroscopy of Doped Helium Nanodroplets.

A new spectroscopic window on OH radicals and their association reactions of significance in the atmosphere.

Velocity Map Imaging, Advances in high-resolution translational spectroscopy.

Molecular spectroscopy with laser frequency combs.

Light induced reactions of cold molecular ions.

Infrared spectroscopic investigations of molecules physically adsorbed on silicalite.

Time-resolved high-harmonic spectroscopy of chemical reactions.

## Mini-symposia

### • **Advanced sources for high resolution spectroscopy**

#### **Laurent MARGULES**

*PhLAM, Lille, France*

State of the art experiments for high resolution terahertz spectroscopy.

#### **Federico CAPASSO**

*Harvard School of Engineering and Applied Sciences, Cambridge MA, USA*

State-of-the-art quantum cascade lasers for spectroscopy and chemical sensing.

#### **Pascale ROY**

*Synchrotron SOLEIL, France*

The THz and Far Infrared beamline AILES on the synchrotron SOLEIL and its scientific program.

### • **Spectroscopy of exotic Rydberg systems**

#### **Chris GREENE**

*JILA, Boulder CO, USA*

Trilobite states.

#### **Adam KIRRANDER**

*Laboratoire Aimé Cotton, Orsay, France*

Heavy Rydberg states.

#### **Edward EYLER**

*University of Connecticut, Storrs CT, USA*

Investigating Rydberg-Rydberg and ion-pair interactions by excitation of an ultracold gas of Rb atoms.

### • **"Hot Topics"-1**

#### **Oleg BOYARKIN**

*EPFL, Lausanne, Switzerland*

Spectroscopy of water in single quantum states: a benchmark for calculations.

#### **Igor PTASHNIK**

*University of Reading, UK*

Water vapor continuum: CAVIAR experiments and implication for possible causes.

### • **"Hot Topics"-2**

#### **Pasquale MADDALONI**

*INOA, Napoli, Italy*

Unveiling the physics of molecules with comb-assisted infrared coherent sources.

#### **Krzysztof PACHUCKI**

*University of Warsaw, Poland*

Quantum electrodynamics of molecular hydrogen.

**PROVISIONAL PROGRAM OF THE 22<sup>nd</sup> COLLOQUIUM ON  
HIGH-RESOLUTION SPECTROSCOPY**

**August 29 – September 2, 211, DIJON, FRANCE**

<b>DATES</b>	<b>Aug. 29, 2011</b>	<b>Aug. 30, 2011</b>	<b>Aug. 31, 2011</b>	<b>Sept. 1, 2011</b>	<b>Sept. 2, 2011</b>
<b>Hours</b>	Monday	Tuesday	Wednesday	Thursday	Friday
<b>8:30</b> <b>9:00</b>  <b>10:30</b>	<b>8:30</b> <b>Welcome</b> <b>Inv. speakers</b>  Coffee break + <b>Poster session</b>	<b>Inv. speakers</b>  Coffee break + <b>Poster session</b>	<b>8:00</b> Bus to <b>Besançon</b>  <b>9:30</b> Inv. <b>speakers</b>  <b>11:15</b> Coffee break  <b>11:30</b> Inv. <b>speaker</b>	<b>Inv. speakers</b>  Coffee break  <b>Poster session</b>	<b>Inv. speakers</b>  Coffee break  <b>Poster session</b>
<b>12:30 – 14:00</b>	Lunch	Lunch	Lunch	Lunch	Lunch
<b>14:00</b>  <b>15:30</b>	<b>Inv. speakers</b>  Coffee break + <b>Poster session</b>	<b>Inv. speakers</b>  Coffee break + <b>Poster session</b>	<b>14:00</b> <b>Sightseeing</b> <b>tour</b>  <b>17:45</b> <b>Departure</b>	<b>Inv. speaker</b>  Coffee break + <b>Poster session</b>	
<b>19:00 – 20:00</b>	<b>Town Hall reception</b>	Dinner	<b>19:00</b> <b>Banquet</b>  <b>23:00</b> Bus to <b>Dijon</b>	Dinner	
<b>Evening</b>		<i>Downtown conference</i> + <i>Bar des Sciences</i>		<b>Poster session</b>	