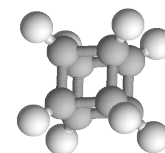


# DIJON 2015

24 – 28 August, 2015

<http://hrms2015.sciencesconf.org>



## Executive Committee

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Chimie quantique et  
Photophysique,  
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C. PRIOU-JACOTOT  
B. SINARDET  
R. SURLEAU

## Third Circular: July 2015

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 tramway from the train station). The local organization is undertaken by the "Laboratoire Interdisciplinaire Carnot de Bourgogne" (ICB).

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

**Mme Claire PRIOU-JACOTOT**

**Laboratoire Interdisciplinaire Carnot de Bourgogne, UMR 6303 CNRS-Université de Bourgogne**

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

Tel. : +33 3 80 39 61 39, Fax : +33 3 80 39 59 71, E-Mail : [hrms2015@sciencesconf.org](mailto:hrms2015@sciencesconf.org)

## Scientific Program:

There will be 12 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.

## 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, Université de Bourgogne, Bruker, Elsevier, Taylor & Francis, Radiant Dyes Lasers and Wiley.

## WWW home page:

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

<http://hrms2015.sciencesconf.org>

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

## Plenary sessions:

The plenary (invited lectures) sessions will be held in the **Galilée Lecture Hall**, just behind the main building of the "Faculté des Sciences Gabriel" (see attached map on page 7).

## Poster sessions:

The poster sessions will take place in the Hall of the « **Faculté des Sciences Gabriel** » (see attached map on page 7). A white board (**1.5 m wide and 1 m high / "landscape" orientation**) will be available for each participant wishing to present his/her work.

## Amat-Mills Prize:

The 2015 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 "24<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.

Posters of Amat-Mills applicants will be displayed during **session B, D (Monday) and F (Tuesday)**.

## Exhibitors:

The companies listed below will present their products during the colloquium (room near the poster sessions), please **do not forget to visit them!**

- Bruker
- Radiant Dyes Lasers

## Sightseeing tour and banquet:

On Wednesday, August 26<sup>th</sup>, afternoon, there will be a **sightseeing tour** at the city of **Beaune**, featuring the "Hospices de Beaune", the "Marché aux Vins", "Moutarderie Fallot" and a free city visit.

In the evening, there will be a **conference banquet in the Bastion of the Hôtel Dieu of Beaune**. More detail is given on the conference's Web site.

## Social program for accompanying persons:

A social program will be organized for accompanying persons. It will consist of various sightseeing activities in Dijon and around on Monday, Tuesday and Friday. A detailed program is given on the conference's Web site.

## HRMS DIJON 2015 – LIST OF INVITED SPEAKERS

### **Emilio COCINERO**

Universidad del País Vasco, Leioa, Spain

### **Jean DEMAISON**

Chemical Information Systems, Universität Ulm,  
Germany and PhLAM, Université de Lille 1, France

### **Robert GAMACHE**

University of Massachusetts, Lowell MA, USA

### **John MAIER**

University of Basel, Basel, Switzerland

### **David NESBITT**

JILA, University of Colorado, Boulder CO, USA

### **Martin QUACK – Molecular Physics Lecture**

ETH Zürich, Zürich, Switzerland

### **Richard SAYKALLY**

University of California, Berkeley CA, USA

### **Mélanie SCHNELL**

Max Planck Institute, Hamburg, Germany

### **John STANTON**

University of Texas, Austin TX, USA

### **Vladimir TYUTEREV**

GSMA, Université de Reims Champagne-Ardenne,  
Reims, France

### **Wim UBACHS**

Vrije Universiteit Amsterdam, Amsterdam,  
Netherlands

### **Jun YE**

JILA, University of Colorado, Boulder CO, USA

Elucidating Structures of Carbohydrates by High Resolution Spectroscopies

Accuracy in Spectroscopy

Line Shape Parameters for Molecules Observed in Planetary Atmospheres

Electronic Spectra of Organic Radicals and Ions of Relevance to Interstellar Space and Combustion

Dynamics Via High Resolution Infrared Spectroscopy: From Interstellar Hydrocarbon Radicals to Collisions at Gas-Liquid Interfaces

Molecules in Motion: Symmetries and Intramolecular Primary Processes between Yoctoseconds and Days as Derived from High Resolution Spectroscopy and Theory

The Hydration Structure of Aqueous Carbonic Acid and Carbon Dioxide from X-Ray Absorption Spectroscopy

Enantiomer Differentiation Using Broadband Rotational Spectroscopy

Recent Advances in Calculations of Vibronic Coupling

Highly Excited Molecular States: Challenge for Spectroscopy, Dynamics, Astrophysics

Physics Beyond the Standard Model from Molecules

Cavity-Enhanced Frequency Comb Spectroscopy

## Mini-symposia

### • Spectroscopy of planetary atmospheres

#### **Antoine JOLLY**

LISA, Université Paris 12, Créteil, France

#### **André BUTZ**

KIT, Karlsruhe, Germany

#### **Gaëlle DUFOUR**

LISA, Université Paris 12, Créteil, France

Spectroscopic Signature of Organic Molecules in Titan's atmosphere

Accurate Remote Sensing of Greenhouse Gases in the Earth's Atmosphere

Natural and Anthropogenic Contributions to the Atmospheric Composition Variability as Observed from Space

### • New experiments with cold molecules

#### **Michael TARBUTT**

Imperial College, London, United Kingdom

#### **Gabriele SANTAMBROGIO**

FIH-MPG, INO-CNR & LENS, Berlin, Germany

#### **Iolanda RICCIARDI**

Istituto Nazionale di Ottica, Napoli, Italy

Applications of Cold Molecules to Fundamental Physics

Molecule Chip: Toward High Resolution Spectroscopy

Optical Parametric Oscillator for Avant-Garde High Resolution Spectroscopy

### • Excitons, interatomic Coulomb decay, and dipole-dipole interactions

#### **Lorenz CEDERBAUM**

University of Heidelberg, Heidelberg, Germany

#### **David PLUSQUELLIC**

NIST, Boulder CO, USA

#### **Johannes DEIGLMAYR**

ETH Zürich, Zürich, Switzerland

ICD and its Exploration by Short, Intense and Coherent Light Pulses

State Resolved UV Studies of Flexible Bichromophores

Exotic Chemistry with Ultracold Rydberg Atoms

**PROGRAM OF THE 24<sup>th</sup> COLLOQUIUM ON  
HIGH-RESOLUTION SPECTROSCOPY  
August 24 – 28, 2015, DIJON, FRANCE**

DATES	Aug. 24, 2015	Aug. 25, 2015	Aug. 26, 2015	Aug. 27, 2015	Aug. 28, 2015
Hours	Monday	Tuesday	Wednesday	Thursday	Friday
<b>8:30</b> <b>9:00</b>	<b>8:30 Welcome</b> <b>Inv. Speakers A</b>  Chair: M. Herman M. Quack* J. Demaison	<b>Inv. Speakers E</b>  <i>Mini-symposium: Planetary atmospheres</i> Chair: A. Perrin A. Jolly A. Butz G. Dufour	<b>Inv. Speakers I</b>  Chair: M. Rotger M. Schnell D. Nesbitt	<b>Inv. Speakers K</b>  <i>Mini-symposium: Excitons</i> Chair: F. Merkt L. Cederbaum D. Plusquellic J. Deiglmayr	<b>Inv. Speakers P</b>  Chair: L. Rothman V. Tyuterev J. Stanton
<b>10:30</b>	Coffee break	Coffee break	Coffee break	Coffee break	Coffee break
<b>11:00</b>	<b>Poster session B</b>	<b>Poster session F</b>	<b>Inv. Speakers J</b>  Chair: D. Bermejo R. Saykally R. Gamache	<b>Poster session L</b>	<b>Poster session Q</b>
<b>12:30 – 14:00</b>	Lunch	Lunch	Lunch	Lunch	Lunch
<b>14:00</b>	<b>Inv. speakers C</b>  <i>Mini-symposium: Cold molecules</i> Chair: T. Huet M. Tarbutt G. Santambrogio I. Ricciardi	<b>Inv. speakers G</b>  Chair: J. Grabow J. Ye W. Ubachs	<b>14:00</b> <b>Sightseeing tour</b>	<b>Inv. Speakers M</b>  Chair: B. Lavorel E. Cocinero J. Maier	<b>VAMDC annual meeting</b>
<b>15:30</b>	Coffee break	Coffee break		Coffee break	
<b>16:00</b>	<b>Poster session D</b>	<b>Poster session H</b>		<b>Poster session N</b>	
<b>19:00 – 20:00</b>	<b>Town Hall reception</b>	Dinner	<b>19:00 Banquet</b>	Dinner	
<b>Evening</b>		<i>Downtown conference</i>  <i>Bar des Sciences</i>	<b>23:00 Bus to Dijon</b>	<b>Poster session O</b>	

\*Molecular Physics Lecture

Note: The Downtown Conference and the "Bar des Sciences" are planned additional events that will take place downtown for the Dijon people.

## PRACTICAL INFORMATION

PLEASE REFER TO THE ATTACHED MAPS (PAGE 7)

### • HOW TO REACH DIJON...

*A visa may be required; please ask your travel agency.*

**Plane:** Nearest airports are PARIS (Orly and Roissy-Charles-de-Gaulle), LYON (Saint-Exupéry), GENEVA (Cointrin) and BASEL-MULHOUSE.

**Train:** From/to Dijon, numerous non-stop and daily connections with PARIS (Gare de Lyon), LYON (to MARSEILLE / NICE / ITALY / NIMES / MONTPELLIER / SPAIN / TOULOUSE / GRENOBLE), NANCY – METZ (to LUXEMBOURG / GERMANY), REIMS (to LILLE / BELGIUM), BESANCON (to STRASBOURG / GERMANY), LAUSANNE, NEUCHÂTEL, BERNE (Switzerland).

**WARNING! 1)** Reservation required (with possible supplement) for TGV trains (may be purchased from automatic machines, or online, see address below). **2)** Before getting to the station platform, don't forget to validate your ticket (and reservation if any) at one of the "yellow machines" (except for e-Tickets).

From Dijon-Ville Station, you can reach the University Campus either by **tramway line T1** (in front of the station, recommended), exiting at "**Erasme**" or by taxi cabs (just on the central mall),

*All information concerning trains in France (time-tables, ... ) can be found on the SNCF (French Railway Company) Web server :*

<http://www.sncf.fr>

### **Car:**

- From Paris (A6/A38): do not cross Dijon center. Follow direction "TROYES" by continuing on the "LINO" highway that goes around Dijon and exit at "DIJON-UNIVERSITE".
- From Nancy (A31): exit "ARC SUR TILLE" (around 15 km away from Dijon) and follow the "ARC" road to "DIJON" for arriving on expressway "G. Pompidou" and exit at "DIJON-UNIVERSITE".
- From Lyon (A6): exit "DIJON-CENTRE"; then Express Way "G. Pompidou" and "DIJON-CENTRE" then "DIJON-UNIVERSITE".
- *Parking is limited on the Campus. See attached maps (page 7).*

### • WHEN ARRIVING...

We recommend you to go directly to the Colloquium Office, central hall of the "**Faculté des Sciences**", **6 boulevard Gabriel** (mark "Registration desk" on the campus map), which will be kept open from 16:00 till midnight on Sunday, August 23 (but please, try to arrive before 22:00!). You will get there all Colloquium material, your tickets for the Restaurant (if any), and all required information to reach - either the University Dorms "Mansart" – or your hotel.

If you plan to arrive when the Colloquium Office is closed, you may go directly to the University dorms (ask for the caretaker) or to your hotel.

A Sunday evening cold meal will be available for people who bought one when registering. This will take place at building' Cafeteria, from 19:00 to 23:00.

### • THE COLLOQUIUM...

**Location:** in the "Gabriel" building of the Science Faculty: (mark "Registration desk" on the map).

- Plenary sessions (invited speakers): Galilée lecture hall (outside the building).
- Poster sessions: main hall of the building.
- Scientific/commercial exhibitions: room in main hall (during poster sessions).

**Office-registration desk:** in central hall (Room R2); opening hours:

- Sunday: 16:00 till midnight.
- Monday: 08:00 to 12:00 and 14:00 to 18:00.

- Tuesday, Thursday and Friday: 09:00 to 11:00 and 15:00 to 17:00 (closed on Wednesday).

**University restaurant:** "Mansart" (marked "Restaurant" on the campus map), for breakfast and meals. Opening hours are as follows:

- **Breakfast:** from 07:30 to 08:15.
- **Lunch** : from 12:30 to 13:15 (closed at 14:00).
- **Dinner** : from 18:30 to 19:30.

**University dorms:** "Mansart", "Boulevard Mansart" (marked "Dorms" on the campus map).

- Luxury rooms: Single furnished rooms (bed sheets, towels, soap) with a bathroom (WC, basin and shower)
- Standard rooms: Single furnished rooms with lavatory (bed sheets, towels, soap). Shower-room, WC and working-room on each floor.
- Phone-box on first floor.

**Reception:** "Apéritif" offered by the City of Dijon, on Monday August 24 (around 19:00), at the Town Hall ("Palais des Ducs de Bourgogne" in "Salle de Flore"). Special buses will be at your disposal to join the Town Hall (but everybody should return to the campus by his own means).

**Wednesday session, sightseeing tour and banquet:** on Wednesday August 31.

**Departure from Dijon at 14:00 by special buses**

### VERY IMPORTANT!

**1)** The tour and banquet cost is included in the registration fees. Thus, accompanying persons wishing to participate will have to pay the amount of 100 € (if not done at registration); please register and pay at the Office no later than Monday August 24 noon.

**2)** Payment by Credit Card or Check only will be available at the Colloquium Office for late registration and accommodation fees only. **NO CASH PAYMENT WILL BE ACCEPTED.**

**3)** WIFI accounts will be provided to each participant. However, we **STRONGLY RECOMMEND TO USE THE "EDUROAM"** network. This international academic WIFI access is very convenient and exists in most universities around the world. You can ask for access certificates at your local computing resource center.

### • MISCELLANEOUS ...

#### Tramway:

The Campus is connected to Downtown and the Railway Station by **tramway line T1**.

Weekdays service: 06:00 to midnight, with a 7 to 8 minutes frequency.

Sunday: 07:00 to midnight, with a 15 to 20 minutes frequency.

Tickets (reusable, do not throw them away!) may be purchased from machines at each station.

#### Post office – Bank / Change:

Several bank offices are available around the campus.

Automatic banknotes delivery (CB/VISA/MASTERCARD).

Mansart Post Office ("**Post Office**" mark on the campus map): 08:00 to 19:00 (Saturday: 08:00-12:00).

For information, the present official exchange rate (French banks, mid-July, 2015) is:

$$1 \text{ €} \approx 1.11 \text{ US\$} \approx 136.7 \text{ ¥}$$

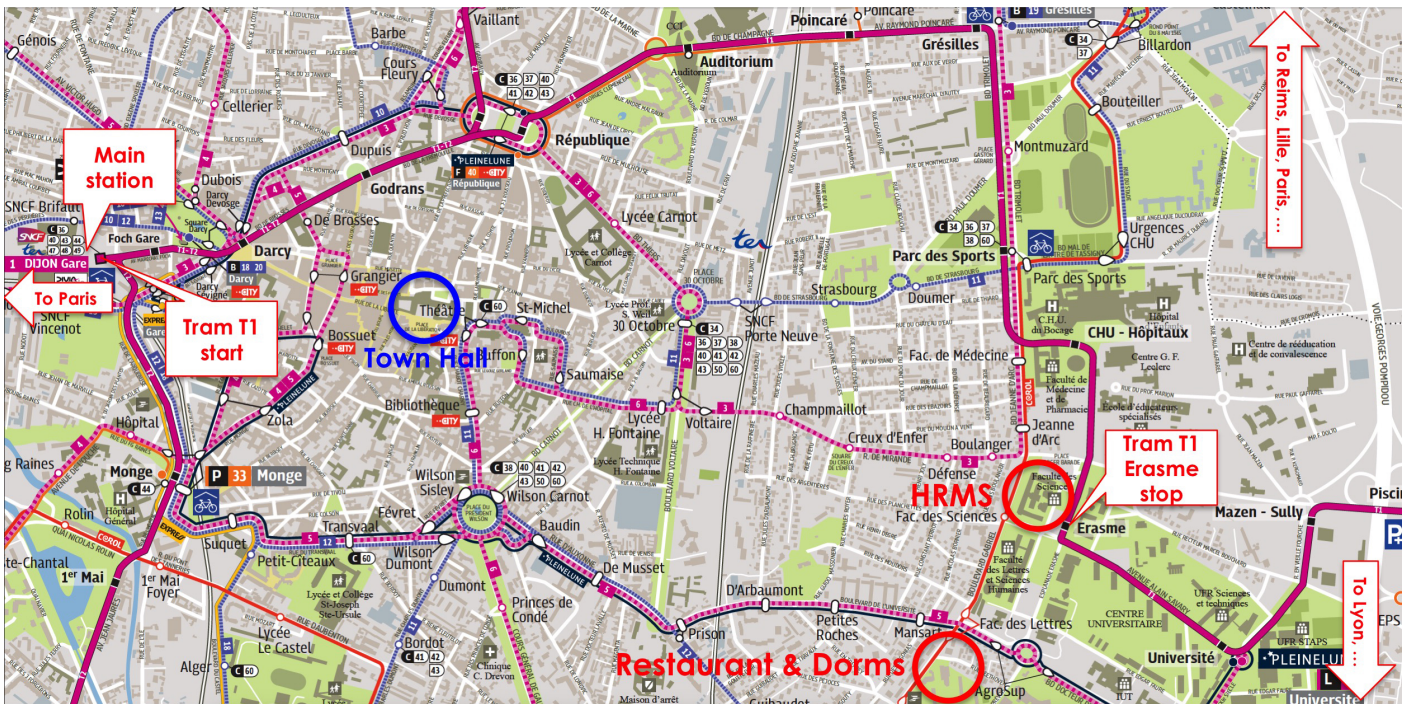
**Others:** The Colloquium Office will keep at your disposal:

- computers and WiFi access (see above) to the Internet,
- detailed maps of Dijon and the bus network,
- tourist information (maps, guides) about Dijon and Burgundy,
- addresses of restaurants, wine-cellars, wine growers,
- information on City movies, theatres, concerts ...

**... wishing to make your stay in Dijon as pleasant as possible!**

# MAPS

## 1) Dijon and Campus Situation



## 2) Campus Map

