THE TWENTY-SIXTH COLLOQUIUM ON HIGH RESOLUTION MOLECULAR SPECTROSCOPY

DIJON 2019
26 – 30 August, 2019
http://hrms2019.sciencesconf.org

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Second Circular: March 2019

The Colloquium will be held at the “Faculté des Sciences Mirande” of the “Université de Bourgogne”, 9 avenue A. Savary, DIJON – FRANCE (approximately 20 min by tramway 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 Claire PRIOU-JACOTOT

Laboratoire Interdisciplinaire Carnot de Bourgogne, UMR 6303 CNRS-Université de Bourgogne
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Scientific Program:
There will be 10 invited lectures and 3 mini-symposia. Parallel sessions will be dedicated to 36 contributed lectures given by PhD students and postdocs. There will be 7 poster sessions. A special lecture will celebrate the 50th anniversary of this conference series. The covered fields are:

• 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!
Important dates:

- Deadline for final registration and submission of abstracts: June 1st 2019
- Deadline for final reservation of accommodations: June 1st 2019
- 3rd circular with meeting information: July 2019

Accommodations and meals:
Single rooms with shower are available in student dormitories on campus within easy walking distance of the conference site (40 € / night, including breakfast). 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 August is a highly touristic period.

For participants arriving on Saturday, we offer the possibility to have a student dormitory room for the night from Saturday August 24th to Sunday August 25th.

Meals will be available at the campus restaurant (16.75 € / meal).

Fees:
Conference fees are 320 €, with a reduction for students (190 €). This price includes congress participation, colloquium proceedings, welcome on Sunday August 25th in the evening, excursion and banquet for participants only. The price for accompanying persons is 95 €. Fees will increase in case of payment after June 1st, 2019.

Registration:

**PLEASE READ VERY CAREFULLY THIS SECTION!**

- Registration should be made online only at this address:
  
  https://www.azur-colloque.fr/DR06/inscription/inscription/33/fr

- Once going to the above address, you are first asked for your coordinates.

- You can also indicate if you are vegetarian or have any food intolerance…

- Then, please choose the correct “category” (regular, student, invited speaker, exhibitor…).
  
  *The invited speaker category only concerns the list of people listed on the last page of this circular.*

- Finally, you have to choose all the “extras” to indicate the rooms and meals you want. Please be **VERY CAREFUL** here!

  *Invited speakers should not choose rooms or meals at this stage. We will handle your accommodation and meals separately.*

  Thus, please review carefully your choices before proceeding to the payment page. Your choice here is definitive. We cannot reimburse you in case of an error at this stage.

- As before, there is the possibility to buy a cold evening meal for Sunday August 25th (16.50 €).
Please note again, in case you stay in a campus room, that there will be no breakfast on the campus on Sunday August 25th and on Saturday August 31st (room price is reduced to 34 € in this case).

**VERY IMPORTANT WARNING: No cash payment will be accepted** (only credit card or bank transfer payments are possible).

**Abstracts:**

We will use a modified version of the Electronic Abstract Submission (EAS) system developed at the Ohio State University. Detailed instructions will be given in the second circular.

When submitting an abstract, **young researchers** (PhD students and postdocs) **will be strongly encouraged to apply for giving a contributed lecture** (15-minute talk, including questions).

The abstract electronic submission system will be opened on April 15th, 2019.

The deadline for submission is June 1st, 2019.

Detailed instructions for electronic submission of abstracts will be soon available on the dedicated Web page:

http://vesla.u-bourgogne.fr/hrms

Be careful that before April 15th, this address still points to the program of the previous Dijon 2015 meeting. 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.

**Amat-Mills Prizes:**

As in previous colloquia, two prizes will award the best student talk and the best student poster. Applicants should be 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 either a regular poster or a contributed talk at the “26th 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 or talk to be selected for the competition, should be sent to the local organizer before June 1st, 2019.

The abstract itself must also be submitted as indicated above before June 1st, 2019.
Sightseeing tour and banquet:
On Wednesday, August 28th, afternoon, there will be a sightseeing tour in the Auxois. In the evening, there will be a conference banquet in the Château de Marsannay. 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.

WWW home page:
The conference has a home page on the World Wide Web to provide up-to-date information:

http://hrms2019.sciencesconf.org

Acknowledgments:
We wish to thank the following institutions for their contribution to the success of this conference: Conseil Régional de Bourgogne Franche-Comté, CNRS and Université de Bourgogne Franche-Comté.
## PRELIMINARY PROGRAM OF THE COLLOQUIUM

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<td>8:30</td>
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<td>8:30 Inv. Speakers I</td>
<td>Inv. Speakers K</td>
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INVITED SPEAKERS

NB: Titles are still preliminary

Tuesday evening “50th anniversary” talk (45’)

M. Herman
ULB, Brussels, Belgium

Overtone spectroscopy and dynamics

Plenary speakers (45’)

B. Bernhardt
Experimental Physics, Graz University of Technology, Graz, Germany

Dual comb spectroscopy: a novel tool for high resolution molecular spectroscopy

H. Fielding
Department of Chemistry, University College London, UK

Liquid-microjet photoelectron spectroscopy of biochromophores

B. Jezierski
Department of Chemistry, University of Warsaw, Poland

Theoretical determination of accurate atomic and molecular properties for an optical pressure standard

T. Giesen
Experimental Physik V Labor-astrophysik, Universität Kassel, Kassel, Germany

Laboratory infrared spectroscopy and its application for astronomical observations

Y.-P. Lee
Applied Chemistry, National Chiao Tung University, Hsinchu, Taiwan & Institute of Atomic and Molecular Sciences, Academia Sinica, Taipei, Taiwan

Infrared spectra of free radicals and protonated species isolated in solid para-hydrogen

K. Lehmann
University of Virginia’s Department of Chemistry, Charlottesville, USA

Mid-IR near-IR double resonance spectroscopy of CH₄ and CH₃D

D. Neumark
College of Chemistry, University of California, Berkeley, USA

High resolution photoelectron spectroscopy of negative ions

L. Nguyen
USA, Université Paris 12 / CNRS, Créteil, France

Understanding (coupled) large amplitude motions - The interplay of microwave spectroscopy, spectral modeling, and quantum chemistry

T. Suzuki
Department of Chemistry, Graduate School of Science, Kyoto University, Japan

Ultrafast VUV photoelectron spectroscopy of dynamics in the gas and condensed phases

K. Vodopyanov
College of Optics and Photonics, University of Central Florida, Orlando, USA

Massively parallel sensing of trace molecules and isotopologues with subharmonic mid-IR frequency combs

Mini-symposia

• MS1: Theoretical predictions of molecular spectra

M. Rey (40’)
GSMA, CNRS / Université de Reims Champagne-Ardenne, Reims, France

Toward completeness and high accuracy from advanced computational methods: a review

O. Polyansky (40’)
Dept. of Physics and Astronomy, University College London, UK

Extra high accuracy line positions and intensities of three and four atomic molecules from variational calculations

A. Yachmenev (20’)
Center for Free-Electron Laser Science (CFEL), Deutsches Elektronen-Synchrotron DESY, Hamburg, Germany

Creating, imaging and controlling chiral molecules with electric fields
C. Sousa-Silva (20')
Dept. of Earth, Atmospheric and Planetary Sciences, MIT, Cambridge, USA

Advances in the simulation of molecular spectra

• MS2: Environmental far- & mid-IR spectroscopy

B. Drouin (30')
JPL, Pasadena, USA

The PREFIRE (Polar Radiant Energy in the Far-InfraRed Experiment) project

A. Cuisset (30')
LPCA, Université du Littoral, Dunkerque, France

High-resolution rovibrational spectroscopy of molecules with environmental interest using electronic, optoelectronic and synchrotron terahertz sources

R. Motiyenko (30')
PhLAM, Université de Lille / CNRS, Lille, France

Spectroscopy of atmospherically relevant molecules: the contribution from the terahertz domain

R. Hargreaves (30')
Harvard-Smithsonian Center for Astrophysics, Harvard, USA

Spectroscopy of gases at high temperature with application to HITEMP

• MS3: Cold molecules for spectroscopy and dynamics

P. Scheier (40')
University of Innsbruck, Innsbruck, Austria

Spectroscopy of cold molecular ions from doped helium nanodroplets

B. Van de Meerakker (40')
Radboud University, Nijmegen, The Netherlands

High resolution scattering experiments using velocity controlled molecular beams

H. Williams (20')
Imperial College, London, UK

Laser cooled molecules for tests of fundamental physics

V. Di Sarno (20')
CNR-Istituto Nazionale di Ottica, Naples, Italy

Lamb-dip spectroscopy of buffer-gas-cooled stable molecules