THE TWENTY-SIXTH COLLOQUIUM ON HIGH RESOLUTION MOLECULAR SPECTROSCOPY

DIJON 2019

26 – 30 August, 2019

http://hrms2019.sciencesconf.org

Executive Committee

FREDERIC MERKT	THERESE HUET	PAOLO DE NATALE	VINCENT BOUDON
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Local Organizer

First Circular: November 2018

The Colloquium will be held at the "Faculté des Sciences Mirande" of the "Université de Bourgogne", 9 ave. 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

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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**. 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.

Important dates:

- 2nd circular: **February 2019**
- 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:

Single rooms are available in student dormitories within easy walking distance of the conference site. 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.

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

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.

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).

Fees:

We estimate conference fees to be 300 € (350 US$), with a reduction for students (160 €, 190 US$). This price includes congress participation, colloquium proceedings, welcome on Sunday August 23rd in the evening, excursion and banquet for participants only. More precise information (including prices for accompanying persons) will be given in the second circular. Fees will increase in case of payment after June 1st, 2019.

WARNING: No cash payment will be accepted (only credit card of bank transfer payment is possible).

Amat-Mills Prizes:

As in previous colloquia, two prizes will award the best student talk and the best student poster. Instructions for application will be given in the second circular.

WWW home page:

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

http://hrms2019.sciencesconf.org

PRELIMINARY PROGRAM OF THE COLLOQUIUM

DATES	Aug. 26, 2019	Aug. 27, 2019	Aug. 28, 2019	Aug. 29, 2019	Aug. 30, 2019
Hours	Monday	Tuesday	Wednesday	Thursday	Friday
8:30	**8:30 Welcome**				
9:00	**Inv. Speakers A**	**Contrib. Lect. E**	**Inv. Speakers I**	**Inv. Speakers K**	**Poster session P**
10:30	Coffee break	Coffee break	Coffee break	Coffee break	Coffee break
11:00	**Poster session B**	**Poster session F**	**Inv. Speakers J**	**Poster session L**	**Inv. Speakers Q** *(Mol. Phys. Lect.)*
12:30 – 14:00	Lunch	Lunch	Lunch	Lunch	Lunch
14:00	**Mini. Symp. C**	**Mini. Symp. G**	**14:00 Sightseeing tour**	**Mini. Symp. M**	
16:00	Coffee break	Coffee break		Coffee break	
16:30	**Contrib. Lect. D**	**Poster session H**		**Poster session N**	
19:00 – 20:00	**Town Hall reception**	Dinner	**19:00 Banquet** (with prizes) **23:00 Bus to Dijon**	Dinner	
Evening		**50 years special lecture**		**Poster session O**	

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, Gratz, 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. Jeziorski
Department of Chemistry, University of Warsaw, Poland

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

T. Giesen
Experimentalphysik 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 CH_4 and CH_3D

D. Neumark *(Mol. Phys. Lecture)*
College of Chemistry, University of California, Berkeley, USA

High resolution photoelectron spectroscopy of negative ions

L. Nguyen
LISA, 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