

ESD
2017

7th International Workshop
on Electrostatic Storage Devices

2017
June 19 - 22

Lyon, France

Participant Guide

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Welcome

Recent progress in electrostatic storage devices for ion beams give access to new experiments for research on large and small molecules and atomic clusters. The advantages of using stored ion beam are to perform experiment with molecules at very low internal energy, without mass limitation and with a precise velocity of ion beam. Furthermore, new opportunities arise for employing laser sources or synchrotron radiation light in a wide spectral range, for merged-beam collision experiments and advanced particle detection techniques. Thus, these techniques give access to the new and precise experiments on internal rearrangements in complex atomic-scale systems, dynamics of complex biomolecular, processes in interstellar spaces or in fields such as mass spectrometry (Megadalton).

Following these developments, a special International Workshops series on Electrostatic Storage Devices were held in Eilat, Israel (2005), Stockholm, Sweden (2007), Aarhus, Denmark (2009), Gatlinburg, USA (2011), Heidelberg Germany (2013) and Tokyo Japan (2015). In the line of the previous meetings, the **7th LYON Workshop ESD 2017** will be devoted to progress in the development of electrostatic ring and trap instruments and experimental research using these devices.

Looking forward to seeing you in Lyon,

Serge Martin

ESD 2017 Chair

Committees

Local Organizing Committee

Chair: **Serge Martin**, ILM, Université Lyon1-CNRS

Li Chen, ILM, Université Lyon1-CNRS

Jérôme Bernard, ILM, Université Lyon1-CNRS

Richard Brédy, ILM, Université Lyon1-CNRS

Rodolphe Antoine, ILM, Université Lyon1-CNRS

Jimmy Rangama, CIMAP, Université Caen-CNRS

International Advisory Committee

Henning Schmidt, Stockholm University (Sweden)

Serge Martin, Université Lyon1 (French)

Yoni Toker, Bar-Ilan University (Israel)

Henrik B. Pederson, Aarhus University (Danmark)

Michael Fogle, Auburn University (USA)

Robert Continetti, University of California (USA)

Andreas Wolf, Max Planck Institut für Kernphysik (Germany)

Toshiyuki Azuma, RIKEN Tokyo (Japan)

Christine Joblin, IRAP Toulouse (French)

Klavs Hansen, Tianjin University, Tianjin (P.R. China)

Université Claude Bernard Lyon 1

Domaine de Rockefeller

Médiathèque / Media Library

8 avenue Rockefeller

69008 Lyon, France

Métro D & Tramway T2- « Grange Blanche »



Arrival from 'Lyon Part-Dieu' train station *(Estimated time: 20 min)*

Take the subway line B towards Gare d'Oullins

Get off at the Saxe-Gambetta stop

Take the subway line D, direction Gare de Vénissieux station

Get off at the Grange-Blanche stop

Arrival from 'Perrache' train station *(Estimated time: 20 min)*

Take the tramway (T2) towards Saint-Priest Bel Air

Get off at the Grange-Blanche stop

Arrival from 'Lyon Saint Exupéry' airport

Join the Part-Dieu train station by Rhonexpress airport shuttle *(Single ticket 14.70€/Return 25.90€)*

Taxi *(About 55€ from Saint Exupery Airport / About 20€ from Part-Dieu or Perrache station)*

Taxi Lyonnais: + 33 04 78 26 81 81

Taxi Lyon: + 33 04 72 10 86 86

General Information

Conference Location

All the conferences will take place in the **Media Library**
(« Médiathèque »)

GPS Coordinates

Lat: 45.74161830000001
Long: 4.880611899999963

Working Language

The conference language is English.

Registration Desk

It is located in the Entrance Hall of the Building. You will collect your delegate badge and conference documentation at the registration desk and then check in. Please note that meeting and restaurant are accessible only with your delegate badge.

During the conference, participants should refer to reception desk for any changes in the program or need for information.

Insurance

The organizers do not accept responsibility for individual medical, travel or personal insurance. Participants are strongly advised to take their own insurance policies.

Wifi

Wireless internet access is available in the conference building. Personal codes are provided in your delegate envelop.

Certificate of attendance

A certificate of attendance will be delivered to all registered participants.

Lunches | Coffee Breaks

Lunches will be taken in a private area in the Domain's restaurant called CROUS. You will find a ticket for each lunch you chose in your personal envelop.

Coffee breaks will be taken in the Hall of 'Média thèque' Building .

Poster Area

There are one poster sessions on Tuesday at 5:30 P.M. in the Hall of 'Média thèque' Building .

Telephone | Emergency phone numbers

The international code for France: 33

Medical care number (SAMU): 15

Police free number: 17

TCL Pass

In your delegate envelope you will find your transportation passes: one pass per day. Do not forget to validate your ticket at each travel on the TCL network.

Tourism Office

Pavillon du Tourisme - Place Bellecour - B.P. 2254, 69214 Lyon, cedex 2

Phone: 04.72.77.69.69

Web: <http://www.lyon-france.com>

Discover LYON

Lyon reveals its architecture through its districts, several of which are included in the UNESCO list of World Heritage sites. The Lyon site encompasses in particular the Vieux Lyon (Old Lyon) and Presqu'île (Peninsula) historic districts, as well as Fourvière and Croix Rousse hills.

The reputation of Lyon for fine cuisine was established centuries ago. Today it is maintained by several hundred Chefs. The Lyon region contains the greatest number of 'starred' Chefs. Several of the France's finest vineyards, including Beaujolais and Burgundy in the north and Côtes du Rhône in the south, begin at the gates of Lyon.

Contact

Université Claude Bernard Lyon 1

Bâtiment Géode

Cellule Congrès - **ESD 2017**

43 bd du 11 novembre 1918

69622 VILLEURBANNE CEDEX, France

esd2017@univ-lyon1.fr

<http://esd2017.univ-lyon1.fr>

Contact on site : Carine DULAC

Social Program

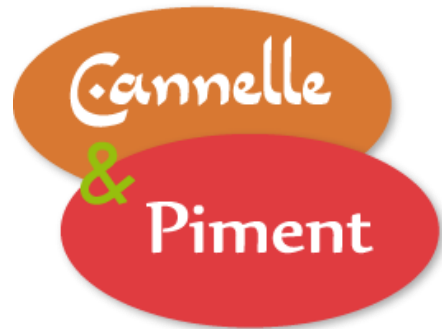


Tuesday, June 20th
6:00 P.M. - 8:00 P.M.

Cocktail (Poster Session)

'Cannelle et Piment' (Cinnamon & Piment') offers homemade, fresh meals. A structure of the social economy and solidarity for 20 years. Their experience is unique and the key to success is human.

In the Hall of 'Médiathèque' Building



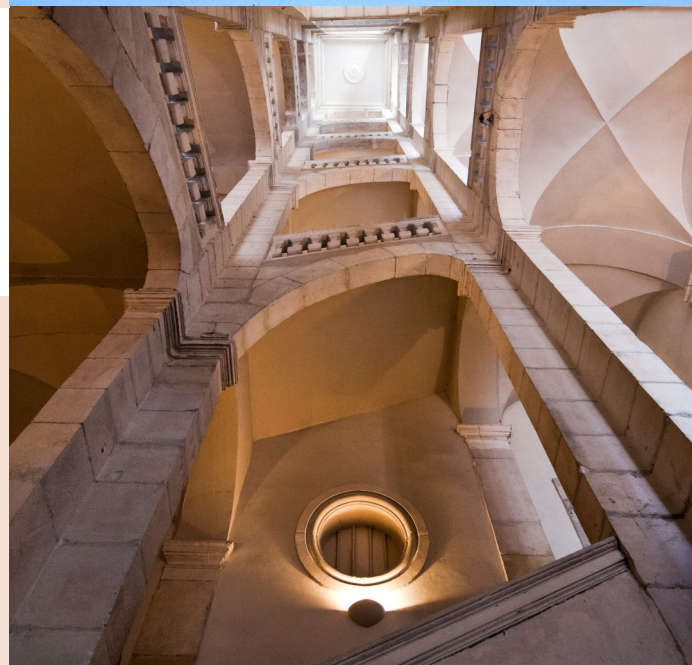
Wednesday, June 21st
3:00 P.M. - 5:00 P.M.

Visit: « Old downtown traboul »

In Lyon, a traboule is a traditional passage that allows to pass from one building to another. The traboules are frequent (230 traboules) in the old Lyon but many are not very visible or closed to the public. You will be able to discover another old Lyon near the city center. Your guide will tell you the secrets and anecdotes which have made the reputation of this historical district, the 1st preserved sector in France to have been inscribed on UNESCO's World Heritage List.

Departure from Saint Jean Cathedral (Métro: St Jean)
at 3:00 P.M.

Please present your visit ticket before the beginning of the visit



Social Program

ESD Wednesday, June 21st
2017 6 P.M. - 11 P.M.



Gala Dinner : « Clos St Marc »

In the south-west of Lyon, in the heart of the Coteaux du Lyonnais, Domaine du Clos St Marc produces red, white and rosé wines in AOC Coteaux du Lyonnais since 1983. Over time the estate has grown steadily for today cultivate 24 hectares of vines .

Departure from Saint Jean Cathedral at 6 P.M.

Return to Lyon - Metro « Grange Blanche »



Scientific Program

8:45	Registration & Coffee	
10:00	Introduction	<i>Chairman: S. Martin</i> (Claude Bernard University, France)
10:15 - 11:00	Electrostatic Ion Storage-in the past,now and the future	H. Cederquist (Stockholm University, Sweden)
11:00 - 12:30	New electrostatic storage projects	<i>Chairman: J. Bernard</i>
11:00 - 11:30	New storage ring, miniring and cryogenic under design at KU Leuven	Peter Lievens (KU Leuven, Louvain, Belgium)
11:30 - 12:00	A storage ring in Tianjin	B. von Issendorff (Freiburg University, Germany)
12:00 - 12:30	First ion storage in a table-top electrostatic storage ring (μ E-ring)	J. Matsumoto (TMU, Japan)
12:30 - 2:00	Lunch & Coffee	
2:00 - 3:30	Macromolecular fragmentation and spectroscopy	<i>Chairman: R. Continetti</i>
2:00 - 2:30	Ultrafast molecular dynamics	O. Vendrell (Aarhus University, Danemark)
2:30 - 3:00	Luminescence studies w/trapped ions	M. Stockett (Stockholm University, Sweden)
3:00 - 3:30	The color of isolated chlorophyll in vacuo	S. B. Nielsen (Aarhus University Danemark)
3:30 - 4:00	Coffee Break	
4:00 - 5:30	Megadalton, single molecule storage, mass and charge measurements	<i>Chairman: A. Wolf</i>
4:00 - 4:30	Fragmentation of single megadalton ions in a "Benner" trap. Is it useful yet ?	R. Antoine (ILM ,Lyon University, France)
4:30 - 5:00	Study of hypervelocity impacts of small massive nanoparticule	R. Continetti (University of California, San Diego, USA)
5:00 - 5:30	Stability studies of hydrogenated PAH cations	Michael Wolf (Stockholm University, Sweden)
5:30	Posters Facilities	

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Scientific Program

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8:45 - 10:30 Internal rearrangements in complex atomic-scale systems

Chairman: R. Antoine

8:45 - 9:30	Ultrafast molecular dynamics studied in an ion storage ring	L. H. Andersen (Aarhus University, Denmark)
9:30 - 10:00	Excited State Dynamics of Protonated Molecules via Cryogenic Ion Spectroscopy	G. Gregoire (University Paris-Sud, France)
10:00 - 10:30	Photon irradiation of an isolated collagen triple helix model	J. C. Pouilly (CIMAP Caen, France)
10:30 - 11:00	Coffee Break	

11:00 - 12:30 Technical developments

Chairman: T. Azuma

11:00 - 11:30	Recent developments and applications of multi-reflection time-of-flight mass spectrometry	Marco Rosenbusch (RIKEN Tokyo, Japan)
11:30 - 12:00	First operation of the Weizmann cryotrap	Hilel Rubinstein (Weizmann Institut, Israel)
12:00 - 12:30	Recent developments in time-resolved multiparticle detection: the COBRA concept	X. Urbain (UCL, Louvain-la-Neuve, Belgium)
12:30 - 2:00	Lunch & Coffee	

2:00 - 3:30

Chairman: J. Rangama

2:00 - 2:30	An Electrostatic Storage Ring for Interdisciplinary Physics Research at JPL	El Ghazaly (Mohamed JPL, USA)
2:30 - 3:00	Commissioning of the RIKEN cryogenic electrostatic storage ring (RICE)	Nakano Yuji (Tokyo Rikkyo University)
3:00 - 3:30	Studies of excited states in atomic negative ions	Dag Hanstorp (Gothenburg University, Sweden)
3:30 - 4:00	Coffee Break	

4:00 - 5:30

Chairman: H. Cederquist

4:00 - 4:30	Developments at the DESIREE	Patrik Löfgren (Stockholm University, Sweden)
4:30 - 5:00	ESI-Pretrap for RICE	Sebastian Menk (RIKEN Tokyo, Japan)
5:00 - 5:30	Evaporative cooling of molecular ions using time-dependent autoresonance	Reetesh Kumar Gangwar (Weismann Institut, Israel)
5:30	Photos & Poster Session & Cocktail	

Scientific Program

8:45 - 10:30	Radiative relaxation of small molecules and its diagnostics	
		<i>Chairman: C. Joblin</i>
8:45 - 9:30	Recurrent fluorescence	Toshiyuki-Azuma (RIKEN Tokyo, Japan)
9:30 - 10:00	Cooling of small PAH in Mini-Ring	L. Chen (Villeurbanne, France)
10:00 - 10:30	Laser probing and population distributions of stored ions	C. Meyer (Max Plank Institut, Heidelberg, Germany)
10:30 - 11:00	Coffee Break	
11:00 - 12:30	<i>Chairman: H. Schmidt</i>	
11:00 - 11:30	Ion molecule reactions and state- resolved photodetachment	Roland Wester (Innsbruck)
11:30 - 12:00	Temperature-Controlled Ion Trap Synthesis of Relatively Complex Molecular Clusters	Chris Johnson (Stonybrook, USA)
12:00 - 12:30	Laser photodetachment of stored OH ⁻ ions: Rotational thermometry and cooling by depletion	Gustav Eklund (Stockholm University, Sweden)
12:30	Lunch	
3:00	"Old downtown traboule" visit, LYON	
6:00	Departure	
7:00	Vineyard and Gala Dinner at Clos st Marc	

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Scientific Program

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9:00 - 10:30 Merged beam interactions

Chairman: **R. Moshhammer**

9:00 - 9:30	Progress report of the anion-cation merged beam zone at DESIREE	Stefan Rosén (Stockholm University, Sweden)
9:30 - 10:00	The electron merged beam at CSR	P. Wilhelm (MPIK Heidelberg, Germany)
10:00 - 10:30	CSR reaction microscope	R. Moshhammer (MPIK Heidelberg, Germany)

10:30 - 11:00 Coffee Break

11:00 - 12:30

Chairman: **R. Thomas**

11:00 - 11:30	Experiments on Interaction of Electron with Biomolecular Ions using Electrostatic Ion Storage Ring in KEK	S Tomita (Tsukuba Institut, Tokyo, Japan)
11:30 - 12:00	Laser spectroscopy in cone trap for nuclear measurements	Paul Campbell (Manchester, UK)
12:00 - 12:30	Electronic and vibrational radiative cooling of C_4^-	Naoko Kono (TMU Tokyo, Japan)

12:30 - 2:00 Lunch & Coffee

2:00 - 3:30 Radiative cooling and spectroscopy of cluster ions

Chairman: **K. Hansen**

2:00 - 2:30	Metal cluster anion decays. Experiments in DESIREE and simulations	Michael Gatchell (Stockholm University, Sweden)
2:30 - 3:00	Internal dynamics of stored cluster ions	Sebastian George (Max Plank Institut, Heidelberg, Germany)
3:00 - 3:30	Production and action spectroscopy of small PAH dimer cations	J. Bernard (ILM Villeurbanne, France)

3:40 Closing
Coffee Break

Laboratory visit

Meeting Point : **Bâtiment ORION 9:00 A.M.**

Université Claude Bernard Lyon 1

Domaine Scientifique de la DOUA

Bâtiment ORION

Rue Ada Byron

69622 Villeurbanne, France

Tramway T1 or T4 -> Stop: « Université Lyon 1 »

Friday 23

9:00 - 12:00 Laboratory visit

10:30 Coffee Break

Lower ground floor of the 'Maison d'hôtes' building
(20m from ORION and Van de Graff)

Building 'ISA'

1. Benner trap for Megadalton molecule
2. Mass spectrometry and ion mobility experiment for proteins, clusters and nanoparticles

Building 'Van de Graff'

1. Mining experiment (Fragmentation, cooling and spectrometry of PAH and dimer of PAH)
2. Collision Experiment ions- large molecules (Coincidence et CIDECE) PAH-biomolecule



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