

POSMOL 2015 Lisboa, Portugal

XVIII International Workshop on Low-Energy Positron and Positronium Physics

XIX International Symposium on Electron-Molecule Collisions and Swarms

Steve Buckman Workshop Thursday, 16th

	Thursday	Friday	Saturday	Sunday	Monday			
	16/07/2015	17/07/2015	18/07/2015	19/07/2015	20/07/2015			
08:30 - 09:00		F R E E D A Y	OPENING REMARKS					
09:00 - 09:45			PL1- ALLAN	PL3 - BRAY	PL5 - TENNYSON			
09:45 - 10:15			TLE1/ TLP1- VARELA	TLE9/ TLP9 - SUGAWARA	TLE15 - ORLANDO	TLP15 - KURODA		
10:15 - 10:45			TLE2/ TLP2 - DANIELSON	TLE10/ TLP10 - CHIARI	TLE16 - RACKWITZ	TLP16 - STORRY		
10:45 - 11:15	Opening Remarks		COFFEE BREAK	COFFEE BREAK	COFFEE BREAK			
11:15 - 11:45	Z. Petrovic		TLE3 - DENIFL	TLP3 - GRIBAKIN	TLE11- URQUIJO	TLP11- LISZKAY	TLE17 - SAJEEV	TLP17 - ERIKSON
11:45 - 12:15	C. Clark		TLE4 - PTASINSKA	TLP4 - BETTEGA	TLE12 - DONKO	TLP12 - ASAI	TLE18 - VÁSQUEZ	TLP18 - NATISIN
12:15 - 14:00	LUNCH		LUNCH	LUNCH COMMITTEES MEETING	LUNCH			
14:00 - 14:45	H. Tanaka		PL2 - BROMLEY	PL4 - PETROVIC	D E P A R T U R E			
14:45 - 15:15	H. Cho		TLE5 - GAY	TLP5 - MICHISHIO			TLE13 - ALVES	TLP13 - TATTERSALL
15:15 - 15:45	G. Garcia	TLE6 - COSTA	TLP6 - BRAWLEY	TLE14 - BOYLE			TLP14 - HOGAN	
15:45 - 16:15	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK					
16:15 - 16:45	S. Buckman	TLE7 - SWIDEREK	TLP7 - JONES	EXCURSION				
16:45 - 17:15	J. Sullivan	TLE8 - KUMAR	TLP8 - MACHACEK					
17:15 - 19:00	WELCOME RECEPTION AND REGISTRATION	POSTER SESSION WG1CELINA MEETING						
19:00 - 00:00	DINNER			CONFERENCE DINNER				

**SCIENTIFIC PROGRAMME OF THE XIX INTERNATIONAL SYMPOSIUM ON
ELECTRON-MOLECULE COLLISIONS AND SWARMS**

Friday 17th July

16:45 – 19:00 REGISTRATION AND WELCOME RECEPTION (Campus Campolide)

Saturday 18th July

08:30 – 09:00 **Opening Remarks**

Plenary Lecture – Chair: E. Krishnakumar (Room A)

09:00 – 09:45

PL01: **M. Allan** (*University of Fribourg*)

“Nuclear dynamics in resonances, 2-dimensional EEL spectra, electrons and ionic liquids, electronic excitation and other stories”

Session A – Chair: M. Tachikawa (Room A)

09:45 – 10:15

TL01: **M. T. do N. Varella** (*University of São Paulo*)

“Electron-induced damage to biomolecules: from gas to condensed phase”

10:15 – 10:45

TL02: **J. R. Danielson** (*University of California*)

“Role of Vibrational Mode Coupling in Determining Positron Annihilation on Molecules”

10:45 – 11:15 COFFEE BREAK

Session B – Chair: O. Ingólfsson (Room B)

11:15 – 11:45

TLE03: **S. Denifl** (*University of Innsbruck*)

“Low energy electron interaction with (hydrated) pyrimidine clusters”

11:45 – 12:15

TLE04: **S. Ptasinska** (*University of Notre Dame*)

“Evaluation of low energy electron-induced fragmentation of peptide model molecules”

12:15 – 14:00 LUNCH

Plenary Lecture – Chair: S. Buckman (Room A)

14:00 – 14:45

PL02: **M. W. J. Bromley** (*University of Queensland*)

“The remorseless AMO physics of Jim Mitroy”

Session C – Chair: R. Curik (Room B)

14:45 – 15:15

TLE05: **T. Gay** (*University of Nebraska*)

“Threshold Alignment Reversal and Circularly-Polarized Fluorescence in Rotationally-Resolved H₂”

15:15 – 15:45

TLE06: **R. F. da Costa** (*Universidade Federal do ABC*)

“The role of multichannel coupling effects on the description of electron-molecule collisions”

15:45 – 16:15 COFFEE BREAK

- Session D** – Chair: N. J. Mason (Room B)
16:15 – 16:45 TLE07: **P. Swiderek** (*University of Bremen*)
“The electron-induced chemistry of FEBID: Beyond DEA and thermal fragmentation”
- 16:45 – 17:15 TLE08: **R. Kumar** (*University of Iceland*)
“Low energy electron induced fragmentation of potential FEBID precursors”
- 17:15 – 19:00** **Poster Session**
COST Action CM1301 CELINA WG1 Meeting (Room B)

Sunday 19th July

- 09:00 – 09:45 **Plenary Lecture** – Chair: Y. Nagashima (Room A)
PL03: **I. Bray** (*Curtin University*)
“Theory of low-energy positron scattering on atoms and molecules”
- 09:45 – 10:15 **Session E** – Chair: G. Laricchia (Room A)
TL09: **H. Sugawara** (*Hokkaido University*)
“Electron behavior under characteristic magnetic fields applied to inductively coupled plasmas for control of charged particle transport”
- 10:15 – 10:45 TL10: **L. Chiari** (*Tokyo University of Science*)
“Cross section measurements for positron and electron scattering from molecules of biological relevance”
- 10:45 – 11:15** **COFFEE BREAK**
- 11:15 – 11:45 **Session F** – Chair: M. Hoshino (Room B)
TLE11: **J. de Urquijo** (*Universidad Nacional Autónoma de Mexico*)
“Ion-molecule reactions and secondary ionization processes in gases of biological and atmospheric interest”
- 11:45 – 12:15 TLE12: **Z. Donko** (*Hungarian Academy of Sciences*)
“Coulomb collisions in electron swarms in heavy rare gases: effects on negative differential conductivity”
- 12:15 – 14:00** **LUNCH**
- 14:00 – 14:45 **Plenary Lecture** – Chair: H. Cho (Room A)
PL04: **Z. Lj. Petrovic** (*University of Belgrade*)
“Swarms as an exact representation of weakly ionized gases”
- 14:45 – 15:15 **Session G** – Chair: R. White (Room B)
TLE13: **L. L. Alves** (*Instituto Superior Técnico*)
“Electron scattering cross sections for the modelling of oxygen-containing plasmas”
- 15:15 – 15:45 TLE14: **G. J. Boyle** (*James Cook University*)
“Spatiotemporal evolution of electrons in gaseous and liquid argon”

15:45 – 16:15 **COFFEE BREAK**
16:15 – 19:00 **EXCURSION**
19:00 **CONFERENCE DINNER**

Monday 20th July

09:00 – 09:45 **Plenary Lecture** – Chair: I. Fabrikant (Room A)
PL05: **J. Tennyson** (*University College London*)
“Calculations of bound and continuum states of molecules using the R-matrix method”

09:45 – 10:15 **Session H** – Chair: P. van der Burgt (Room B)
TLE15: **T. M. Orlando** (*Georgia Institute of Technology*)
“Low energy (< 5 eV) electron interactions with DNA and RNA nucleotides”

10:15 – 10:45 TLE16: **J. Rackwitz** (*University of Potsdam*)
“Novel approaches to study low-energy electron-induced damage to DNA oligonucleotides”

10:45 – 11:15 **COFFEE BREAK**

11:15 – 11:45 **Session I** – Chair: H. Tanuma (Room B)
TLE17: **Y. Sajeew** (*Bhabha Atomic Research Centre*)
“Low-energy free-electron catalyzed chemical reactions”

11:45 – 12:15 TLE18: **F. J. Gordillo-Vázquez** (*Instituto de Astrofísica de Andalucía - CSIC*)
“Electron kinetics in upper atmospheric electrical discharges”

12:15 – 14:00 **LUNCH**

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10:15 – 10:45 TL02: **J. R. Danielson** (*University of California*)

“Role of Vibrational Mode Coupling in Determining Positron Annihilation on Molecules.”

10:45 – 11:15 COFFEE BREAK

Session B – Chair: R. Campeanu (Room A)

11:15 – 11:45 TLP03: **G. F. Gribakin** (*University of Nebraska*)

“Positronium scattering from noble-gas atoms at intermediate and low energies”

11:45 – 12:15 TLP04: **M. H. F. Bettega** (*Federal University of Paraná*)

“Cross sections for positron collisions with small molecules”

12:15 – 14:00 LUNCH

Plenary Lecture – Chair: S. Buckman (Room A)

14:00 – 14:45 PL02: **M. W. J. Bromley** (*University of Queensland*)

“The remorseless AMO physics of Jim Mitroy”

Session C – Chair: D. B. Cassidy (Room A)

14:45 – 15:15 TLP05: **K. Michishio** (*Tokyo University of Science*)

“Resonant Photodetachment of Positronium Negative Ions”

15:15 – 15:45 TLP06: **S. J. Brawley** (*University College London*)

“Positronium scattering below its break-up threshold”

15:45 – 16:15 COFFEE BREAK

16:15 – 16:45 **Session D** – Chair: V. Flambaum (Room A)
TLP07: **A. Jones** (*University of California*)
“Experiments with Rydberg Positronium”

16:45 – 17:15 TLP08: **J. R. Machacek** (Australian National University)
“Positron scattering from molecules”

17:15 – 19:00 Poster Session
COST Action CM1301 CELINA WG1 Meeting

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10:45 – 11:15 COFFEE BREAK

11:15 – 11:45 **Session F** – Chair: J. Sullivan (Room A)
TLP11: **L. Liskay** (*CEA-DSM/IRFU*)
“Progress with intense positron beams from compact electron accelerator based sources”

11:45 – 12:15 TLP12: **A. Ishida** (*University of Tokyo*)
“New measurements of the Positronium Hyperfine Splitting”

12:15 – 14:00 LUNCH

14:00 – 14:45 **Plenary Lecture** – Chair: H. Cho (Room A)
PL04: **Z. Lj. Petrovic** (*University of Belgrade*)
“Swarms as an exact representation of weakly ionized gases”

14:45 – 15:15 **Session G** – Chair: J. Mohallem (Room A)
TLP13: **W. Tattersall** (*Australian National University*)
“Extending Monte Carlo transport simulations to dense structured fluids”

15:15 – 15:45 TLP14: **S. D. Hogan** (*University College London*)
“Rydberg atom optics - from hydrogen to positronium”

15:45 – 16:15 COFFEE BREAK

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“Calculations of bound and continuum states of molecules using the R-matrix method”

09:45 – 10:15 **Session H** – Chair: D. Fursa (Room A)
TLP15: **N. Kuroda** (*University of Tokyo*)
“Production of an antihydrogen beam”

10:15 – 10:45 TLP16: **C. Storry** (*York University*)
“ATRAP Update”

10:45 – 11:15 **COFFEE BREAK**

11:15 – 11:45 **Session I** – Chair G. Gribakin (Room A)
TLP17: **S. Eriksson** (*Swansea University*)
“Towards laser spectroscopy of antihydrogen in the ALPHA experiment”

11:45 – 12:15 TLP18: **M. R. Natisin** (*University of California*)
“Ultra-high resolution, trap-based positron beams using a cryogenic buffer gas”