Draft programme for 3rd QUADMARTS Network meeting, Rennes November 2-4, 2021

Tuesday November 2, 2021

TA Beaulieu PNRB

09:00 (60')	Registration and refreshments	PNRB Hall
10:00	Welcome and introduction to the QUADMARTS network current and future: A word on behalf of the Université de Rennes 1: Welcome and organisational aspects:	Mitchio Okumura and Sébastien Le Picard, co-PIs of QUADMARTS Jean-François Carpentier, VP Research UR1 Ian Sims for the Organising Committee
	Topic 1: Photo-ionization and mass spectrometric methods	Session chair: Sébastien Le Picard
10:20 (40' + 10')	Invited plenary: Double imaging electron/ion coincidence spectroscopy (I^2PEPICO) for the study of complex molecular media and chemical reactions	Laurent Nahon, SOLEIL Synchrotron, Paris, France
11:10 (15' + 5')	Invited talk: State-selective methods for accelerator-based reaction studies	Xavier Urbain, UC Louvain, Belgium
11:30 (15' + 5')	Invited talk: Action spectroscopy of cold molecular ions	Clément Lauzin, UC Louvain, Belgium
11:50 (15' + 5')	Contributed talk: A Combined PEPICO, Mass Spectrometric, and Chromatographic Analysis of Low Temperature Neopentane Oxidation in Jet-Stirred Reactor	Jérémy Bourgalais, LRGP Nancy, France
12:10-13:20	Lunch + posters	
	Theory session 1	Session chair: François Lique
13:20 (40' + 10')	Invited plenary: High-accuracy quantum chemistry for thermochemical and kinetic calculations	John Stanton, U Florida, Gainesville, FL, USA, USA
14:10 (15' + 5')	Contributed talk: Dynamics of Complex forming reactions at low temperature: trapping and dimers	Octavio Roncero, IFF-CSIC, Madrid, Spain
	Topic 2: New laser and cavity spectroscopy methods, frequency combs	Session chair: Lucile Rutkowski
14:30 (40' + 10')	Invited plenary: Comb-based Fourier transform spectroscopy	Aleksandra Foltynowicz, Umeå U, Sweden
15:20 (15' + 5')	Contributed talk: Cavity-enhanced spectroscopy with chip-scale optical frequency combs in the CH stretching region	Charles Markus, Caltech, Pasadena CA USA
15:40 (15' + 5')	Contributed talk: Dual-comb cavity ring-down spectroscopy	Piotr Maslowski, Nicolaus Copernicus University, Toruń, Poland
16:00 (30')	Refreshments + posters	
16:30 (45')	**Breakout session 1**: Photoionization and mass spectrometric methods / posters / general discussion	Breakout session 1 coordinator: Ludovic Biennier
17:15 (45')	**Breakout session 2**: New laser and cavity spectroscopy methods, frequency combs / posters / general discussion	Breakout session 2 coordinator: tbd
18:00	Close of sessions	
19:00/19:30	Dinner at Le Galopin Restaurant, 21 Av. Jean Janvier, 35000 Rennes	Please arrive by 19:30 latest

Wednesday November 3, 2021

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	Topic 3: Microwaves to THz: high sensitivity techniques	Session chair: Ian Sims
09:00 (40' + 10')	Invited plenary: Techniques for rotational spectroscopy of trace molecular species	Kyle Crabtree, UC Davis, USA
09:50 (15' + 5')	Contributed talk: Millimeter and sub-millimeter spectroscopic studies of astrophysically relevant radicals - Illustration with the CH_2CN radical	Olivia Chitarra, ISMO, U Paris-Saclay, France
10:10 (15' + 5')	Contributed talk: Improving the sensitivity of chirped pulse Fourier transform mm-wave detection in uniform supersonic flows	Omar Abdelkader Khedaoui, IPR, U Rennes 1, France
10:30 (30')	Refreshments + posters	
	Theory session 2	Session chair: François Lique
11:00 (40' + 10')	Invited plenary: The Low-Lying Electronic States of NO_2: Potential Energy and Dipole Surfaces, Bound States, and Electronic Absorption Spectrum	Richard Dawes, Missouri S&T, USA
11:50 (15' + 5')	Contributed talk: Spin-forbidden chemistry in $S^+ + H_2$	Alexandre Zanchet, IFF-CSIC, Madrid, Spain
12:10-13:30	Lunch + posters Visit of nurse to provide COVID testing (lateral flow/antigen with printed certificate)	Please see Benjamin Desrousseaux for information (benjamin.desrousseaux@univ-rennes1.fr)
	Topic 4: New techniques in environmental sensing	Session chair: Robert Georges
13:30 (40' + 10')	Invited plenary: tbd	Alain Campargue, LiPhy Grenoble
14:20 (45')	**Breakout session 4:** New techniques in environmental sensing / posters / general discussion	Breakout session 4 coordinator: Christa Fittschen
15:05 (45')	**Breakout session 3**: Microwaves to THz: high sensitivity techniques / posters / general discussion	Breakout session 3 coordinator: tbd
15:50 (30')	Refreshments + posters	
16:20 (90')	**Lab visits** / informal discussions	
17:50	Close of sessions	
18:30-19:30	Networking event for young researchers	Myriam and Benjamin
19:30-	Informal dinner	(location to be confirmed)

Thursday November 4, 2021

Young researchers' meeting

Organisers: Myriam Drissi and Benjamin Desrousseaux

Amphi A, B2A

	Session 1	Chair: Amélie Godard
09:00 (15' + 5')	Contributed talk: Theoretical study of NH by H_2 in the interstellar medium	Paul Pirlot, IPR, U Rennes 1, France
09:20 (15' + 5')	Contributed talk: Low temperature product branching ratios for the reaction of CN radicals with propene	Myriam Drissi, IPR, U Rennes 1, France
09:40 (15' + 5')	Contributed talk: Fourier-transform CRDS with an optical frequency comb in the near infrared region	Romain Dubroeucq, IPR, U Rennes 1, France
10:00 (15' + 5')	Contributed talk: Kinetics and Branching for the Reactions of N_2^+ with C_3H_4 Isomers at Low Temperatures and Implications for Titan's Atmosphere	Ahmad Mortada, IPR, U Rennes 1, France
10:20 (30')	Refreshments + posters	
	Session 2	Chair: Romain Dubroeucq
10:50 (15' + 5')	Contributed talk: PRFI-ZEKE PES: a development of PFI-ZEKE PES technique	Ning Chen, ISMO, U Paris-Saclay, France
11:10 (15' + 5')	Contributed talk: Absolute Absorption Cross-Section of $C_2H_5O_2$ Radical and Kinetics of Its Self-Reaction: Rate Constant and Branching Ratio	Cuihong Zhang, PC2A, U Lille, France
11:30 (15' + 5')	Contributed talk: Collisional excitation of CO_2 by He : New potential energy surface and scattering calculations	Amélie Godard, IPR, U Rennes 1, France
11:50 (15' + 5')	Contributed talk: Water allows the rotational detection of triacetone triperoxide	Alberto Macario, U Valladolid, Spain and U Rennes 1, France
12:10 (15' + 5')	Contributed talk: Real-time Spectroscopic Investigation of Rapidly Heated C_{60} in a Shock Tube	Shubhadip Chakraborty, IPR, U Rennes 1, France
12:30-	Lunch + departure	