Program for 4th QUADMARTS Network meeting

Lille, June 27 – 29, 2022

Sunday, June 26, 2022

From 19h00 Informal get-together at “3 Brasseurs”, 22 place de la Gare

Monday, June 27, 2022

CERLA building, Campus Cité Scientifique

9h00	Registration and coffee
9h45 – 10h00	Introduction - The QUAMARTS Network (Sébastien Le Picard & Mitchio Okumura)
10h00 – 10h45	**Pei-Ling Luo** - Mid-infrared time-resolved dual-comb spectroscopy: A new approach to kinetic and product studies in gas-phase reactions
10h45 – 11h30	**Henrik Grum Kjærgaard**- Atmospheric Autoxidation via fast Peroxy Radical Hydrogen Shift Reactions
11h30 – 11h50	**Mirna Shamas** - Absolute Absorption Cross-Section of $C_2H_5O_2$ Radicals and Kinetic of its Self-Reaction
11h50 – 13h50	**Buffet in CERLA hall**
13h50 – 14h35	**Leonid Sheps**- Time resolved quantitative detection or reaction intermediates at elevated pressures and temperatures
14h35 – 14h55	**Gustavo Garcia** - Analysis of the volatile monoterpene composition of black pepper and citrus essential oils by photoelectron spectroscopy

14h55 – 15h15 **Caroline Lewin** - Quantitative Measurements and Structural Elucidation of Intermediates in Ethylene Ozonolysis through a Combined Theoretical, GC-MS, and SVUV-PEPICO

15h15 – 15h45 Coffee break

15h45 – 16h30 **Weidong Chen** -Optical metrology of atmospheric species by spectroscopy : from lab to field campaigns

16h30 – 16h50 **Mélanie Ghysels-Dubois** – ICAR-HO_2 : an innovative compact instrument for atmospheric HO_2 monitoring

16h50 – 17h35 **Eleanor Waxman** - Fiber lasers in the field - trace gas measurements from the boundary layer to the lower stratosphere

20h Restaurant in downtown

Tuesday, June 28, 2022

CERLA building, Campus Cité Scientifique

9h00 – 9h45 **Andy Ruth** - Cavity-Enhanced Methods with Broadband (Incoherent) Light Sources

9h45 – 10h05 **Chuanliang Li** - A toroidal absorption cell with multi-layer patterns by a single ring surface and its application

10h05 – 10h25 **Cui Ruy** - Development of high-finesse broadband optical cavity based on Brewster-angle prism retroreflectors for sensing of atmospheric species

10h25 – 10h45 Coffee break

10h45 – 11h30 **Fred Winiberg** - In-situ and Remote Sensing Techniques Applied to the Lab, the Stratosphere and the International Space Station

11h30 – 12h15 **Harold Linnartz** - Plasma tools to characterize molecular transients of astrophysical interest

12h15 – 12h25 **Julien Lecompte** - High suspicion for C_{60} as a DIBs carrier

12h25 – 14h00 Buffet in CERLA hall

14h00 – 14h45 **Jérôme Loreau** - Molecular excitation induced by water in cometary atmospheres

14h45 – 15h05 **Brian Hays** - Stronger collisional excitation of HNC by He than for structural isomer HCN in experiments at low temperatures

15h05 – 15h25 **Fabien Goulay** - Low temperature dimerization of formic acid

15h25 – 15h45 **Alberto Macario** - Study of complexation kinetics processes by rotational spectroscopy coupled with uniform supersonic flows

15h45 – 16h00 The QUADMARTS network- Perspectives (Sébastien Le Picard & Mitchio Okumura)

16h00 – 16h30 Coffee break

16h30 – 18h00 Lab visit

20h00 Restaurant in downtown

Wednesday, June 29, 2022

Espace Culture, Campus Cité Scientifique

9h00 – 9h20 **Nesrine Shamas -** Measurements of HOx and ROx radicals in the atmosphere

9h20 – 9h40 **Sabah Mostafa** - Combustion Chemistry of Cyclic Ethers

9h40 – 10h00 **Myriam Drissi** - Low temperature product branching fractions for the reaction of CN radicals with propene

10h00 – 10h20 **Daniel Lucas** - Theoretical Insight into the Mechanism of the CH (X 2Î) + OCS Reaction

10h20 – 10h50 Coffee break

10h50 – 11h10 **Wei Tingting** - Optical sensing of atmospheric trace gas by light-induced thermoelastic spectroscopy

11h10 – 11h30 **Romain Dubroeucq** - High sensitivity Fourier transform CRDS based on an optical frequency comb

10h30 – 11h50 **Solène Perot** - High resolution spectroscopy of ethylene in the 1.6 µm spectral region to understand the atmosphere of hot Jupiter exoplanets

11h50 Buffet in Espace Culturel