

The Twenty-Ninth Colloquium on High-Resolution Molecular Spectroscopy

August 25 – August 29, 2025

Universität zu Köln
KÖLN – GERMANY



HRMS 2025 – Köln

The Twenty-ninth Colloquium on High-Resolution Molecular Spectroscopy 2025, HRMS 2025, will be held at the I. Physikalisches Institut of the University of Cologne. It is part of the Dijon Spectroscopy Conference Series aiming to bring together spectroscopists from Europe and all around the Globe. The scientific program comprises 20 invited lectures including three mini-symposia on the specific topics of interstellar astrophysics, non-covalent interactions and clocks and metrology. Parallel sessions feature 72 contributed lectures and more than 130 contributions in four poster sessions.

Local Organizer

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Laboratory Astrophysics and Spectroscopy
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HRMS 2025 is supported by these institutions and companies.



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CRC1601, entitled *Habitats of massive stars across cosmic time*, is a collaborative research center funded by German Science Foundation (DFG) at University of Cologne in collaboration with University of Bonn, MPI for Radioastronomy, Bonn and Research Center Jülich.



CCTS, the Cologne Center for THz Spectroscopy, is a DFG core facility project of the laboratory astrophysics group at University of Cologne. DYNAMIVERSE is a DFG funded Cluster of Excellence between the Universities of Cologne and Bonn, the Forschungszentrum Jülich, the Max Planck Institute for Radio Astronomy, the German Aerospace Center and the Heidelberg Institute for Theoretical Studies.



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PRACTICAL INFORMATION

Location

The colloquium will be held at the Physics Institutes of the Universität zu Köln, Zülpicher Str. 77, 50937 Köln. The venue is located in the south-west of Cologne and easily reached by public transportation, e.g., after arriving by train or plane. You may use your personalized KVB public transport ticket.

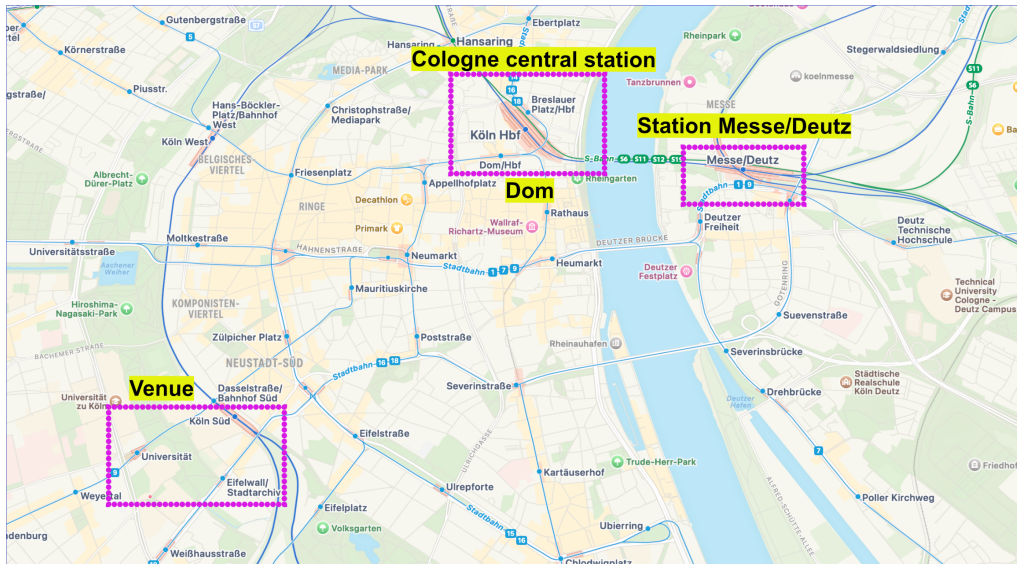


Figure 1: Location of the venue in Cologne

Venue

The physics institutes are close to the tram stops of line #9 *Universität* and line #18 *Eifel-wall* as well as to the train station *Köln Süd*. The University restaurant, Mensa, is only a five minute walk away from the conference venue and located in one of the green belts of Cologne, which also invite you for a recreational walk or run.

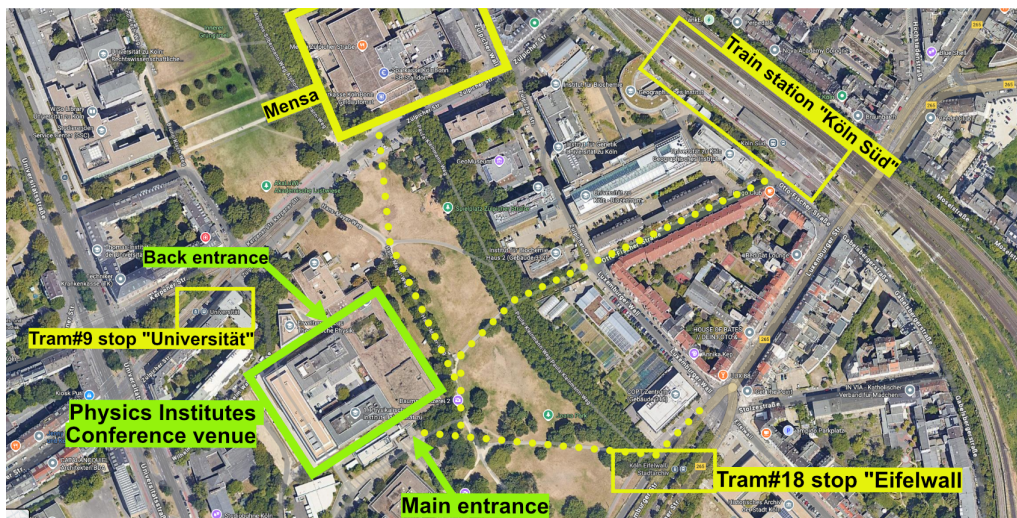


Figure 2: Venue and its surroundings.

Floor plan

The floorplan below displays the three lecture halls (called Hörsaal I, II, III) inside the main building of the Physics Institutes. **Plenary Talks** and **Minisymposia** will be held in Hörsaal I, while **Contributed Talks** will take place in three parallel sessions in Hörsaal I, II and III with an associated session numbering, e.g., D-II. **Coffee breaks**, **Exhibitions** of the sponsoring companies and **poster sessions** will take place in the Foyer in front of the lecture halls.

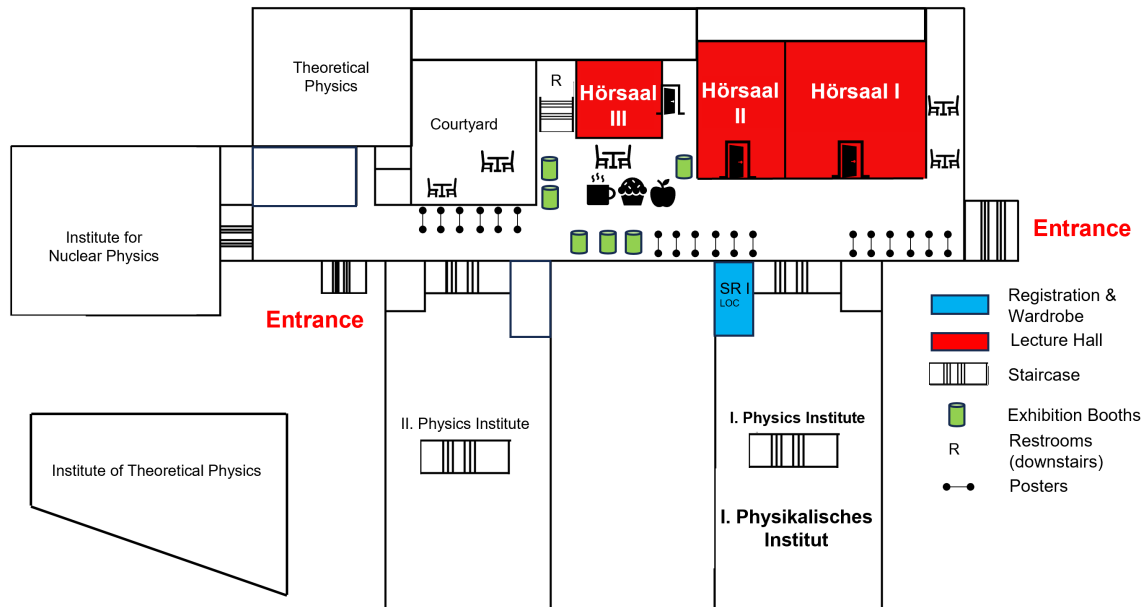


Figure 3: Floormap of the conference site.

Registration desk

The registration desk will be located in the seminar room (SR I) of the I. Physikalisches Institut and will be open on Sunday, August 24 from 16:30 until 19:30, Monday, August 25, 8:15 to 12:30, and throughout the conference during the breaks.

Lunch

Lunch will be available at the campus restaurant “Mensa”. For payment use your mensa vouchers. Credit card payment at higher rates is also possible. Alternatively, the closer environment of the Physics Institutes offers many food options satisfying most likings within walking distance on and around Zülpicher Strasse.

Excursion / Cologne Sightseeing Tour

On Wednesday afternoon, August 27, 14:30 h, there will be guided tours in the Cologne city center. It will be a walking tour of about 2 hours. Upon registration, please sign up for one of the groups (maximum of 15 people each). The meeting point is the place in front of the main entrance of the *Kölner Dom* and can be reached, e.g., by tram line #18 exiting at tram stop Main Station, *Hauptbahnhof/Dom*.



Figure 4: Meeting place for the city tour is between the *Kreuzblume* and the main entrance of the *Kölner Dom*.

Conference Dinner

Following the sightseeing tour, the conference dinner will take place on Wednesday evening, August 27, 18:30 h, at “Haus Unkelbach” which is located right next to the tram stop “Sülzburgerstraße” of tram line #18.

Social program for accompanying persons

Excursions for accompanying persons are organized for Tuesday (August 26) and Thursday (August 28). For all activities and more practical information, see the webpage for details.

QR codes



HRMS2025 website



City tour meeting point



Conference dinner

Program of Sessions

A: Plenary

Monday, August 25, 9:00, Hörsaal I

Chair: Frédéric Merkt

A1 – *INFRARED SPECTROSCOPY AND UNIMOLECULAR DYNAMICS OF REACTIVE INTERMEDIATES* (9:00 – 9:45)

Marsha I. Lester

A2 – *EXOPLANET ATMOSPHERIC CHEMISTRY IN THE JWST ERA* (9:45 – 10:30)

L. Kreidberg

B: Posters

Monday, August 25, 11:00, Foyer

B1 – *INFRARED SPECTROSCOPY OF H_5^+*

S.J.P. Marlton, J. Sarka, P. C. Schmid, T. Salomon, O. Asvany, and S. Schlemmer

B2 – *HIGH RESOLUTION VIBRATIONAL AND ROTATIONAL SPECTROSCOPY OF PROTONATED METHANOL ($CH_3OH_2^+$)*

W.G.D.P. Silva, O. Asvany, S. Thorwirth, T. Salomon, I. Kleiner, I. Gulaczyk, M. Kreglewski and S. Schlemmer

B3 – *CONFORMATIONAL ANALYSIS OF 2-(METHYLTHIO)ETHYLAMINE AND 2-(ETHYLTHIO)ETHYLAMINE USING ROTATIONAL SPECTROSCOPY*

A. Chaudhary, P. Chheang, and J. van Wijngaarden

B4 – *COUPLED METHYL INTERNAL ROTATIONS WITH INTERMEDIATE AND LOW TORSIONAL BARRIERS IN 2,5-DIMETHYLANISOLE AND 2,5-DIMETHYLFLUOROBENZENE INVESTIGATED BY MICROWAVE SPECTROSCOPY*

H. Sun, I. Kleiner, S. Khemissi, L. Ferres and H. V. L. Nguyen

B5 – *ANALYSIS OF 5-METHYL-2-NITROPHENOL BY MICROWAVE SPECTROSCOPY AND QUANTUM CHEMICAL CALCULATIONS*

E. Antonelli, V. Tsoi, M. E. Sanz, I. Kleiner and H.V.L. Nguyen

B6 – *ETHYNYL ISOCYANATE, YET ANOTHER QUASILINEAR TROUBLEMAKER*

K. Vávra, L. Kolesníková, P. Kania, Š. Urban and J.-C. Guillemin

B7 – *ROTATIONAL SPECTROSCOPY OF THE AMINOMETHYL RADICAL CH_2NH_2*

L. Zou, R. Chahbazian, L. Margulès, M.-A. Martin-Drumel, and O. Pirali

B8 – *FT-UV EMISSION SPECTROSCOPY OF THE $B^2\Sigma^+ - X^2\Sigma^+$ SYSTEM OF $^{12}C^{16}O^+$ AND $^{12}C^{17}O^+$*

W. Szajna, K. Jachymek, R.W. Field and R. Hakalla

B9 – *LABORATORY ROTATIONAL SPECTRA AND INTERSTELLAR IDENTIFICATION OF DEUTERATED COMPLEX ORGANIC MOLECULES*

H. A. Bunn, S. Spezzano, L. H. Coudert, J.-C. Guillemin, Y. Lin, P. Perez Rickert, C. P. Endres, Jes Jørgensen, V. Lattanzi, and P. Caselli

- B10 – *SINGLE PHOTOIONIZATION OF VINYL CYANOACETYLENE AND METHACRYLONITRILE IN ASTROPHYSICAL OBJECTS*
H.R. Hrodmarsson, M. Schwell, J.-C. Guillemin, B. Madebène, E.-L. Zins
- B11 – *FREQUENCY COMB-STABILIZED HIGH-RESOLUTION IR-UV DOUBLE RESONANCE SPECTROSCOPY ON A COLD MOLECULAR BEAM*
J. Jakob, F. Peterß, V. Grigorian, S. Schwetje, M. A. Kaufmann, A. Breier, T. F. Giesen, G. W. Fuchs
- B12 – *LABORATORY MEASUREMENTS OF SULFUR BEARING CYCLIC HYDROCARBONS BY MICROWAVE SPECTROSCOPY*
M. Araki, C. P. Endres, P. Caselli, and V. Lattanzi
- B13 – *HIGH-RESOLUTION IR SPECTROSCOPY OF THE HCN^+ AND HNC^+ CATIONS*
P.C. Schmid, S.J.P. Marlton, W.G.D.P. Silva, T. Salomon, D. Gupta, S. Thorwirth, O. Asvany, and S. Schlemmer
- B14 – *COMBINING A CRYOGENIC ION TRAP WITH A 2 THZ MULTIPLIER CHAIN SOURCE: REVISITING THE $J = 1 \leftarrow 0$ FUNDAMENTAL ROTATIONAL TRANSITION OF HHe^+*
O. Asvany, U. Graf, W. G. D. P. Silva, L. Schneider, S. Kabanovic, V. Ossenkopf, J. Stutzki, I. Savić, R. Güsten, O. Ricken, B. Klein and S. Schlemmer
- B15 – *MILLIMETER-WAVE SPECTRUM AND NUCLEAR HYPERFINE STRUCTURE OF THE (para)- NH_3 -(ortho)- H_2 VAN DER WAALS COMPLEX*
I. Tarabukin, V. Panfilov, D. Poydashev, and L. Surin
- B16 – *THE PROGRESS ON HIGH RESOLUTION SPECTRA MEASUREMENTS OF VAN DER WAALS COMPLEXES WATER- CO_2 IN THE SECOND WATER OVERTONE RANGE*
A.S. Bogomolov, S. Collignon, R. Glorieux, N. Moazzen-Ahmadi, M. Herman, and C. Lauzin
- B17 – *GAS PHASE VIBRATIONAL SPECTROSCOPY OF $\text{PF}_6^-(\text{H}_2\text{O})_{0-7}$: DECODING THE ONSET OF HYDROGEN-BOND NETWORK FORMATION*
H. Buttkus, M. Barp, K. Asmis
- B18 – *EXPLORING HALOGEN EFFECTS IN THE ESTERIFICATION REACTION OF FORMIC ACID AND ETHANOL*
W. Sun and M. Schnell
- B19 – *A NEARLY COMPLETE TREATMENT OF THE EFFECT OF NON-ADIABATICITY (NO DIABATISATION) ON ROVIBRATIONAL ENERGIES OF H_3^+*
R. Jaquet
- B20 – *REINVESTIGATION OF PROPYLENE OXIDE BY FOURIER-TRANSFORM MICROWAVE SPECTROSCOPY*
Y. Kawashima and K. M. T. Yamada
- B21 – *NEAR-INFRARED SPECTROSCOPY OF METHANOL AT THE 10^{-13} LEVEL FOR RADIO ASTRONOMY*
A. Altman, F.M.J. Cozijn, A. S. Bogomolov, A. Libert, W. Ubachs and C. Lauzin

- B22 – *HIGH-RESOLUTION VUV AND VIS FT SPECTROSCOPY AND EXTENDED DEPERTURBATION ANALYSIS OF THE $^{13}\text{C}^{18}\text{O}$ $A^1\Pi(v=2)$ LEVEL*
S. Ryzner, A. Stasik, M.I. Malicka, W. Szajna, R.W. Field, W. Ubachs, K.F. Lai, A. Pashov, P. Jasik, J.E. Sienkiewicz, N. de Oliveira and R. Hakalla
- B23 – *ANALYSIS OF THE HIGH RESOLUTION INFRARED SPECTRUM OF MONODEUTERO-OXIRANE*
K. Keppler, S. Albert, Z. Chen, C. Manca Tanner, G. Seyfang, G. Wichmann, A. Brandenberger, M. Perrino, J. Stohner, M. Quack
- B24 – *(SUB-)MM AND INFRARED ANALYSIS OF VINYL CHLORIDE*
M. Lazaridou, F. Happ, O.N. Ulenikov, O.V. Gromova, E.S. Bekhtereva, Yu. V. Khudyakova, M.-A. Martin-Drumel, O. Pirali, L. von Rötzel, L. Bonah, S. Thorwirth, S. Schlemmer
- B25 – *HIGH-RESOLUTION INFRARED SPECTROSCOPIC INVESTIGATION OF THE ν_{12} BREATHING MODE OF PROPYLENE OXIDE AND ITS FERMI-TYPE RESONANCE WITH THE $2\nu_{24} + \nu_{19}$ TORSIONAL COMBINATION BANDS*
B. Asadpour, T. F. Giesen, E. Döring, J. Jakob, F. Peterß, K. Luková, K. Vávra, G. W. Fuchs
- B26 – *PHOTODETACHMENT SPECTROSCOPY OF THE LOWEST S- AND P-WAVE THRESHOLDS OF C_2^-*
Sruthi Purushu Melath, Michael Hauck, Christine Lochmann, Robert Wild, Katrin Dulitz, Roland Wester
- B27 – *MACHINE LEARNING FOR ISOTOPOLOGUE EXTRAPOLATION*
M. Barnfield, J. Tennyson, and S.N. Yurchenko
- B28 – *LASER SPECTROSCOPY OF NEW UV $A^2\Pi - X^2\Sigma^+$ BANDS OF CALCIUM MONOHYDRIDE*
J. Xiong, Y. Moriwaki, and K. Kobayashi
- B29 – *EXOMOL EXTENSIONS: EXOATOM AND EXOPHOTO – SPECTROSCOPIC DATABASES FOR ATOMS AND MOLECULAR PHOTODISSOCIATION*
Qing-He Ni, Christian Hill, Sergei N. Yurchenko, and Jonathan Tennyson
- B30 – *LINE BY LINE ANALYSIS OF THE ν_{10} AND ν_9 BANDS OF ALLENE BETWEEN 600 AND 1200 cm^{-1}*
S. Perot, A. Rizopoulos, and J. Vander Auwera
- B31 – *HIGH-RESOLUTION INFRARED SPECTROSCOPY OF N_2O AND SO_2 BROADENED BY HELIUM TO ASSIST IN ANALYSIS OF EXOPLANETARY ATMOSPHERES.*
Himanshi Singh, Hayley A. Bunn, Laura Schöller, Silvia Spezzano, Paola Caselli, Christian Röske, Manfred Birk, and Georg Wagner
- B32 – *SOLIS: AN ACCURATE IR/VIS LINE LIST FOR SULFUR MONOXIDE ($^{32}\text{S}^{16}\text{O}$) & UV PHOTOABSORPTION AND PHOTODISSOCIATION CROSS SECTION PREDICTIONS*
R. P. Brady, S. N. Yurchenko, and J. Tennyson
- B33 – *AB INITIO SPECTROSCOPIC INVESTIGATION OF HYDROGEN FLUORIDE*
Nariman Abu Elkher, Maha Shibli, Mahmoud Korek, Sergey N. Yurchenko, Jonathan Tennyson, and Nayla El-Kork

B34 – *LINE PARAMETERS MEASUREMENTS OF THE $2\nu_3$ BAND OF CH_3F : LINE INTENSITIES AND LINE AIR-BROADENING COEFFICIENTS*

J. Tison, H. Ziadi, M. Rey, L. Manceron, B. Grouiez, A. V. Nikitin, H. Aroui and M. Rotger

B35 – *EXOMOL LINE LISTS FOR 12 ISOTOPOLOGUES OF CO_2*

S. N. Yurchenko, M. Barnfield, C. A. Bowesman, R. P. Brady, K. Kefala, Q. Ni, O. Smola, A. N. Perri, C. Tao, A. Sokolov, J. Tennyson

C: Minisymposium on Interstellar Astrophysics

Monday, August 25, 14:00, Hörsaal I

Chair: Sandra Brünken

C1 – *INTERSTELLAR CHEMISTRY: WHAT MOLECULES TELL US ABOUT THE UNIVERSE* (14:00 – 14:30)

A. M. Jacob

C2 – *FROM LILLE TO THE STARS: THE QUEST FOR MOLECULES IN THE INTERSTELLAR MEDIUM* (14:30 – 15:00)

L. Margulès

C3 – *HIGHLY CORRELATED AB INITIO CALCULATIONS APPLIED TO THE CHARACTERIZATION OF ASTROPHYSICAL SPECIES* (15:00 – 15:30)

M.L. Senent

C4 – *HIGH-RESOLUTION SPECTROSCOPY OF MOLECULES OF ASTROPHYSICAL IMPORTANCE* (15:30 – 16:00)

S. Spezzano

D-I: Contributed Talks

Monday, August 25, 16:30, Hörsaal I

Chair: Marie-Aline Martin-Drumel

D-I.1 – *SHEDDING LIGHT ON SiC^+ : FIRST LABORATORY SPECTRA OBTAINED BY ELECTRONIC PHOTODISSOCIATION* (16:30 – 16:45)

Kai Pollow, Alexander Breier, and Otto Dopfer

D-I.2 – *HIGH-RESOLUTION RO-VIBRATIONAL AND ROTATIONAL SPECTROSCOPY OF THE OPEN-SHELL, LINEAR CCH^+ ION* (16:45 – 17:00)

K. Steenbakkers, W.G.D.P. Silva, O. Asvany, G.C. Groenenboom, P. Jusko, B. Redlich, S. Brünken, and S. Schlemmer

D-I.3 – *HIGH-RESOLUTION ELECTRONIC AND THRESHOLD PHOTOELECTRON SPECTROSCOPY OF C_{70}^+* (17:00 – 17:15)

H. R. Hrodmarsson, L. Ganner, G. A. Garcia, L. Nahon, and E. Gruber

D-I.4 – *NON-LTE MOLECULAR OPACITIES AND RADIATIVE TRANSFER FOR EXOPLANETS* (17:15 – 17:30)

C. A. Bowesman, S. N. Yurchenko

D-I.5 – *ROTATIONAL SPECTRA OF ASTROPHYSICALLY RELEVANT CYANOALIPHATIC COMPOUNDS: MOLECULAR STRUCTURE AND PUCKERING TUNNELLING IN CYCLOPENT-1-ENECARBONITRILE* (17:30 – 17:45)

D. Heras, Y. Li, N. Osseiran, C. Bermúdez, G. Feng, C. Pérez and A. Lesarri

D-I.6 – *MILLIMETER-WAVE SPECTROSCOPY OF TRANS-METHYL FORMATE*. (17:45 – 18:00)

C. P. Endres, M. Araki, V. Lattanzi, M. Sanz-Novato, V. M. Rivilla, I. Jimenez-Serra, and P. Caselli

D-II: Contributed Talks

Monday, August 25, 16:30, Hörsaal II

Chair: Jeremy Harrison

D-II.1 – *TIME-RESOLVED ROTATIONAL SPECTROSCOPY OF TRANSIENT SPECIES PRODUCED BY UV PHOTOLYSIS* (16:30 – 16:45)

N. Chen, B. M. Hays, E. Alekseev, R. A. Motiyenko, L. Margulès and S. Bailleux

D-II.2 – *LINE SHAPE PARAMETER STUDY OF HELIUM-BROADENED METHANE LINES IN THE ν_4 BAND BY A HIGH-RESOLUTION DUAL-COMB SPECTROMETER* (16:45 – 17:00)

J. Clément, B. Vispoel, O. Browet, N. Dricot, and M. Lepère

D-II.3 – *TEMPERATURE DEPENDENCE OF THE SELF AND FOREIGN WATER VAPOR CONTINUA IN THE 1.6 μm WINDOW* (17:00 – 17:15)

M. Toureille, A. Campargue, J.-L. Martin, S. Kass, and D. Mondelain.

D-II.4 – *HIGH-RESOLUTION SPECTROSCOPIC INSIGHT INTO METHYL FORMATE DEHYDROGENATION: DETECTION AND CHARACTERIZATION OF CH_2OCHO AND CH_3OCO RADICALS* (17:15 – 17:30)

R. Chahbazian, M. L. Senent, M. Carvajal-Zaera, and O. Pirali

D-II.5 – *COLLISIONAL LINE BROADENING FOR (EXO)PLANETARY ATMOSPHERES* (17:30 – 17:45)

J. Buldyreva

D-II.6 – *CARS THERMOMETRY OF BURNED C_2H_4 : CALCULATION OF COLLISIONAL BROADENING COEFFICIENTS* (17:45 – 18:00)

S. Clavier and J. Buldyreva

D-III: Contributed Talks

Monday, August 25, 16:30, Hörsaal III

Chair: Jennifer van Wijngaarden

D-III.1 – *METHYL INTERNAL ROTATION AND NUCLEAR QUADRUPOLE COUPLING EFFECTS IN THE MICROWAVE SPECTRUM OF 1-BROMOPROPENE* (16:30 – 16:45)

T. A. Nguyen, I. Kleiner, and H. V. L. Nguyen

- D-III.2 – *METHYL INTERNAL ROTATION AND NUCLEAR QUADRUPOLE COUPLING EFFECTS IN THE MICROWAVE SPECTRUM OF 2-FLUORO-3-PICOLINE* (16:45 – 17:00)
I. Hadj Said, I. Kleiner, H. V. L. Nguyen and S. Khemissi
- D-III.3 – *A CHLORINE, A NITROGEN, AND A METHYL ROTOR: 2-CHLORO-5-PICOLINE ANALYZED BY MICROWAVE SPECTROSCOPY AND QUANTUM CHEMICAL CALCULATIONS* (17:00 – 17:15)
M. Buttkus-Barth, S. Herbers and H. V. L. Nguyen
- D-III.4 – *BROADBAND ROTATIONAL SPECTRUM OF 2,2,3,3,4,4,4-HEPTAFLUORO-1-BUTANOL AND ITS 1:1 COMPLEXES WITH WATER AND HELIUM* (17:15 – 17:30)
F. Baroncelli, A. Maris, L. Evangelisti, S. Melandri, A. Vazquez, A. Insausti, and E. J. Cocinero
- D-III.5 – *2,6-LUTIDINE: OVERCOMING THE CHALLENGE OF TWO EQUIVALENT LOW-BARRIER METHYL INTERNAL ROTATIONS AND ^{14}N QUADRUPOLE COUPLING* (17:30 – 17:45)
E. Antonelli, M. Buttkus-Barth, V. V. Ilyushin, and H. V. L. Nguyen
- D-III.6 – *SPECTROSCOPIC QUALITY AND VARIATIONAL VIBRATIONAL STATES OF METHANOL AND ENHANCEMENT OF PARITY-VIOLATING SHIFT IN SUBSTITUTED METHANOLS* (17:45 – 18:00)
A. Sunaga and E. Mátyus

E: Plenary

Tuesday, August 26, 9:00, Hörsaal I

Chair: Wolfgang Jäger

- E1 – *EXPLORING CONFORMATIONS AND NON-COVALENT INTERACTIONS IN COMPLEX MOLECULAR SYSTEMS WITH ROTATIONAL SPECTROSCOPY* (9:00 – 9:45)
S. Melandri
- E2 – *COLLISIONAL EXCITATION OF MOLECULES IN ASTROPHYSICAL ENVIRONMENTS: RECENT ADVANCES AND CHALLENGES* (9:45 – 10:30)
J. Loreau

F-I: Contributed Talks

Tuesday, August 26, 11:00, Hörsaal I

Chair: Lucile Rutkowski

F-I.1 – *LASER SPECTROSCOPIC INVESTIGATION OF DESORPTION ENERGY OF CO₂ FROM THE DISPERSION-DOMINATED CO₂ COMPLEXES: ROLE OF N-SUBSTITUTION AND -OH FUNCTIONAL GROUP COLLISIONAL LINE BROADENING FOR (EXO)PLANETARY ATMOSPHERES* (11:00 – 11:15)

Muhammed Shabeeb

F-I.2 – *HIGH-RESOLUTION VIBRATION-ROTATIONAL SPECTRA AND ABSOLUTE LINE STRENGTHS OF HO₂ RADICAL IN THE ν_1 , ν_2 AND ν_3 FUNDAMENTAL BANDS* (11:15 – 11:30)

P.-L. Luo, I.-Y. Chen, and C.-W. Chang

F-I.3 – *INFRARED SPECTRA OF ACETALDEHYDE AND ITS AGGREGATES IN HELIUM NANODROPLETS* (11:30 – 11:45)

R. Hamidi Mejlej, S. Parshotam, W. Jaeger and Y. Xu

F-I.4 – *TWO-DIMENSIONAL FLUORESCENCE AND MASS-SELECTIVE SPECTROSCOPY OF SMALL SILICON CARBIDES: SiC₂, l-SiCCSi, AND c-SiC₆H₄* (11:45 – 12:00)

D. Kaur, J. Flores, and N. J. Reilly

F-I.5 – *THE R-INDEX METRIC FOR EVALUATING OAM CONTENT AND MODE PURITY IN OPTICAL FIELDS* (12:00 – 12:15)

Monika Bahl, Georgios M. Koutentakis, Mikhail Maslov, Tom Jungnickel, Timo Gaßen and Oliver H. Heckl

F-I.6 – *HIGH-RESOLUTION TWO-PHOTON DOPPLER-FREE UV SPECTROSCOPY OF XENON WITH DIRECT MEASUREMENT OF THE AC-STARK SHIFT* (12:15 – 12:30)

M. H. Rayment, R. Stech, and F. Merkt

F-II: Contributed Talks

Tuesday, August 26, 11:00, Hörsaal II

Chair: Stefan Willitsch

F-II.1 – *PRECISION TIME-DOMAIN SPECTROSCOPY OF THE 12.2 GHz MASER TRANSITION IN METHANOL* (11:00 – 11:15)

S. Collignon, B. M. Hays, D. Lederer, M. Daman and C. Lauzin

F-II.2 – *PRECISION MEASUREMENTS IN THE MOLECULAR HYDROGEN IONS FROM RYDBERG-STATE SPECTROSCOPY* (11:15 – 11:30)

I. Doran, L. Jeckel, M. Beyer, Ch. Jungen, and F. Merkt

F-II.3 – *ULTRA-PRECISE LINE-INTENSITY RATIOS REDEFINING PRIMARY OPTICAL THERMOMETRY WITH PARTS-PER-MILLION ACCURACY* (11:30 – 11:45)

J.-K. Li, J. Wang, R.-H. Yin, Q. Huang, Y. Tan, C.-L. Hu, Y.-R. Sun, Oleg L. Polyansky, Nikolai F. Zobov, Evgenii I. Lebedev, Rainer Stosch, Jonathan Tennyson, Gang Li, and S.-M. Hu

F-II.4 – *ACCESSING ALL VIBRATIONALLY EXCITED STATES OF THE $X^+ \ ^2\Sigma_u^+$ ELECTRONIC GROUND STATE OF He_2^+* (11:45 – 12:00)

M. Holdener, V. Wirth, N. A. Shahin, and F. Merkt

F-II.5 – *PROBING FUNDAMENTAL CONSTANTS AND TESTING QED THEORY OF MOLECULES THROUGH HIGH-PRECISION SPECTROSCOPY OF MOLECULAR HYDROGEN IONS* (12:00 – 12:15)

S. Alighanbari, M.R. Schenkel, M. Bakhshi, V.I. Korobov, J.-Ph. Karr, and S. Schiller

F-II.6 – *QUANTUM-LOGIC SPECTROSCOPY OF FORBIDDEN ROVIBRATIONAL TRANSITIONS IN SINGLE MOLECULAR IONS* (12:15 – 12:30)

A. Shlykov, M.L. Diouf, R. Karl, M. Roguski and S. Willitsch

F-III: Contributed Talks

Tuesday, August 26, 11:00, Hörsaal III

Chair: Iouli Gordon

F-III.1 – *MACHINE LEARNING PRESSURE BROADENING PARAMETERS FOR EXOPLANETARY STUDIES* (11:00 – 11:15)

E. R. Guest, J. Tennyson, and S. N. Yurchenko

F-III.2 – *AIR-PERTURBED OXYGEN B-BAND LINE-SHAPE PARAMETERS FOR THE HITRAN2024 DATABASE* (11:15 – 11:30)

K. Bielska, S. Wójtewicz, J. Domysławska, R. Ciuryło, and D. Lisak

F-III.3 – *SPECTROSCOPY OF TRITIATED WATER SPECIES: NEW RESULTS ON THE $\nu_2 + \nu_3$ AND $\nu_1 + 2\nu_2$ BANDS OF HTO AND THE ν_3 BAND OF DTO* (11:30 – 11:45)

V. Hermann, B. Rothmundt, F. Hase, M. Schlösser and J. Orphal

F-III.4 – *LINE POSITIONS AND INTENSITIES OF THE SILANE MOLECULE (SiH_4) FOR ITS FUNDAMENTAL BANDS AND SOME COMBINATION AND OVERTONES* (11:45 – 12:00)

R. Kamel, V. Boudon, C. Richard, F. Kwabia Tchana, and L. Bruel

F-III.5 – *NEW BEYOND-VOIGT LINE-SHAPE PROFILE RECOMMENDED FOR THE HITRAN DATABASE* (12:00 – 12:15)

P. Weislo, N. Stolarczyk, M. Słowiński, H. Jóźwiak, D. Lisak, R. Ciuryło, A. Cygan, F. Schreier, C.D. Boone, A. Castrillo, L. Gianfrani, Y. Tan, S-M. Hu, E. Adkins, J.T. Hodges, H. Tran, N.H. Ngo, J.-M. Hartmann, S. Beguier, A. Campargue, R.J. Hargreaves, L.S. Rothman, and I.E. Gordon

F-III.6 – *AB INITIO SPECTROSCOPY OF METHANOL CH_3OH* (12:15 – 12:30)

O. Smola, S. N. Yurchenko, and J. Tennyson

G: Minisymposium on Non-Covalent Interactions

Tuesday, August 26, 14:00, Hörsaal I

Chair: Yunjie Xu

G1 – *MOLECULAR AGGREGATION: LESSONS I LEARNED FROM MOLECULAR SPECTROSCOPY IN JETS* (14:00 – 14:30)

José A. Fernández

G2 – *THE ROLE OF π - π INTERACTION IN DRIVING DIELS-ALDER CYCLOADDITION: INSIGHTS FROM ROTATIONAL SPECTROSCOPY* (14:30 – 15:00)

Q. Gou

G3 – *INTERMOLECULAR INTERACTIONS REVEALED WITH ROTATIONAL SPECTROSCOPY: STRUCTURE, DYNAMICS & CHIRALITY* (15:00 – 15:30)

Melanie Schnell

H: Posters

Tuesday, August 26, 16:30, Foyer

H1 – *HIGH-RESOLUTION ROTATIONAL SPECTRUM ANALYSIS OF HETEROCYCLIC COMPOUNDS FOR FUTURE ATMOSPHERIC APPLICATIONS*

G. Oubouali, H. El Hadki, A. El Hadki, I. Hadj Said, A. Cuisset, M. Carvajal-Zaera, H. V. L. Nguyen and I. Kleiner

H2 – *ROTATIONAL SPECTROSCOPY AND STRUCTURE OF BORNYL ACETATE*

L. Wang, W. Sun, J. Li, and M. Schnell

H3 – *PRESSURE-BROADENING LINE-SHAPE PARAMETERS OF CO ROVIBRONIC TRANSITIONS*

R. Hakalla, W. Ubachs, A. Stasik, N. de Oliveira, and J. Buldyreva

H4 – *LINE-SHAPE PARAMETERS OF METHANE BROADENED BY DRY AND HUMIDIFIED AIR FROM THE $R(0)$ TO $R(10)$ MANIFOLDS OF THE $2\nu_3$ BAND*

N. Dricot, D. Mondelain and A. Campargue

H5 – *ACCURATE INTENSITIES AND LINE PARAMETERS FOR THE $2\nu_3$ -BAND OF METHANE BASED ON COORDINATED FOURIER-TRANSFORM AND CAVITY RING-DOWN SPECTROSCOPY MEASUREMENTS FROM THREE INDEPENDENT LABORATORIES*

R.-H. Yin, J.-K. Li, Z. D. Reed, J. Wang, A.-W. Liu, J. T. Hodges, M. Birk, Y. Tan, S.-M. Hu

H6 – *HIGH-RESOLUTION FT SPECTROSCOPY OF THE $^{12}\text{C}^{16}\text{O } a^3\Pi - X^1\Sigma^+$ SYSTEM*

A. Stasik, W. Ubachs, R.W. Field, N. de Oliveira, W. Szajna, S. Ryzner, M. I. Malicka, S. Mahmoud, N. El-Kork, N. Abu Elkher, M. Al Mehairbi, R. Al Abdallah, T. Furtenbacher, O. P. Yurchenko, S. N. Yurchenko, J. Tennyson and R. Hakalla

H7 – *FOURIER-TRANSFORM MICROWAVE SPECTROSCOPY OF THE FCS AND ClCS RADICALS*

Cheng-Han Tsai and Yasuki Endo

H8 – *MAGNETO OPTICAL TRAPPING OF ALUMINUM MONOFLUORIDE*

J. E. Padilla-Castillo, J. Cai, P. Agarwal, P. Kukreja, R. Thomas, B. G. Sartakov, S. Truppe, G. Meijer and S. C. Wright

H9 – *SHAPED LIGHT IN SPECTROSCOPY: HOW USING LIGHT CARRYING OAM CAN ENHANCE MOLECULAR SPECTROSCOPY*

Timo Gaßen, Mikhail Maslov, Georgios M. Koutentakis, Tom Jungnickel, Mirela Encheva, Monika Bahl and Oliver H. Heckl

H10 – *HIGH-RESOLUTION PHOTOELECTRON SPECTROSCOPY OF THE $X^+ \ ^2\Sigma^+$ GROUND STATE OF CaAr^+*

Joel R. Schmitz, David Walk, and Frédéric Merkt

- H11 – *HIGH-RESOLUTION LASER AND MILLIMETER-WAVE SPECTROSCOPY AND MQDT ANALYSIS OF HIGH RYDBERG STATES IN Kr, Xe, AND Yb*
E. N. Toutoudaki, H. Herburger, U. Hollenstein, and F. Merkt
- H12 – *LETOKHOV-CHEBOTAYEV TRAPPING SPECTROSCOPY OF H₂*
W. Ubachs, F.M.J. Cozijn, M. L. Diouf, C. Lauzin, H. Jóźwiak and P. Weislo
- H13 – *ON THE TUNNELLING DYNAMICS OF PROTONATED ACETYLENE: THE C-H-C STRETCHING BAND OF ITS BRIDGED CONFIGURATION*
E. Plaar, J. Sarka, T. Salomon, M. Fatima, O. Asvany, W. G. D. P. Silva, P. C. Schmid and S. Schlemmer
- H14 – *LEAK-OUT SPECTROSCOPY OF PROTONATED WATER DIMER*
T. Salomon, C. Markus, O. Asvany, and S. Schlemmer
- H15 – *THE GROUND STATE SUPERMULTIPLY OF NiD*
A. Pashov, A. J. Ross, and P. Crozet
- H16 – *HIGH-POWER, LOW-NOISE MID-INFRARED OPTICAL FREQUENCY COMB FOR CAVITY-ENHANCED LAMB-DIP SPECTROSCOPY*
Vito F. Pecile, Philipp Lausch, Maximilian Prinz, Norbert Modsching, Valentin J. Wittwer, Thomas Südmeyer, Oliver H. Heckl
- H17 – *HIGH-RESOLUTION ROVIBRATIONAL AND ROTATIONAL SPECTROSCOPY OF THE C₂H₂N⁺ ISOMERIC SYSTEM*
L. von Rötel, D. Gupta, W.G.D.P. Silva, O. Asvany, E. Plaar, J. Böing, S. Schlemmer and S. Thorwirth
- H18 – *LASER INDUCED FLUORESCENCE SPECTROSCOPY OF THE JET-COOLED SiNSi RADICAL: ROTATIONAL ANALYSIS OF THE ELECTRONICALLY FORBIDDEN $\tilde{D}^2\Sigma_g^+ - \tilde{X}^2\Pi_g$ TRANSITION*
C. Motoyoshi, Y. Sumiyoshi, Y. Endo, M. Fukushima, and T. Ishiwata
- H19 – *LINE PARAMETERS MEASUREMENTS AND SPECTROSCOPIC MODELING OF CH₃F IN THE 20–100 cm⁻¹ AND 1900–2400 cm⁻¹ SPECTRAL REGIONS*
H. Ziadi, M. Rey, J. Tison, B. Grouiez, A. Voute, L. Manceron, A. V. Nikitin, V. Boudon, H. Aroui, M. Rotger
- H20 – *COMPETITION BETWEEN PRODUCT CHANNELS IN ION-MOLECULE REACTIONS NEAR 0 K: H₂⁺, HD⁺ AND D₂⁺ + CH₃F*
D. Schlander, R. Hahn, J. O. Richardson, T. P. Softley and F. Merkt
- H21 – *MICROWAVE-CONTROLLED COLD CHEMISTRY*
F. B. V. Martins, H. Schmutz, J. A. Agner, V. Zhelyazkova, and F. Merkt
- H22 – *THE STRUCTURE OF GAUCHE-1,3-BUTADIENE: FURTHER INSIGHTS FROM THE CENTIMETER-WAVE, MILLIMETER-WAVE, AND FAR-INFRARED HIGH RESOLUTION SPECTRA*
M.-A. Martin-Drumel, J. H. Baraban, P. B. Changala, M. J. Nava, J. P. Porterfield, B E. Billinghurst, G. B. Ellison, O. Pirali, J. F. Stanton, and M. C. McCarthy
- H23 – *MILLIMETER-WAVE MEASUREMENTS IN HIGH-FINESSE CAVITY OF NITRO-DERIVATIVES TRACES: A NEW INSIGHT IN THE EXPLOSIVE VAPOR SENSING*
A. Roucou, M. Chrayteh, F. Simon, F. Hindle, G. Mouret, M. Goubet, J. Mory, C. Nicollet, A. Cuisset

- H24 – *ADVANCEMENTS IN HOME-BUILT CHIRPED-PULSE SPECTROMETERS AT KÖLN*
P. Misra, M. Fatima, B. Heyne and S. Schlemmer
- H25 – *DISENTANGLING THE SPECTRA OF COMPLEX ORGANIC RADICALS USING FARADAY-ROTATION-BASED MILLIMETER-WAVE INSTRUMENTATION*
R.Chahbazian and O. Pirali
- H26 – *MILLIMETERWAVE CHIRPED-PULSE FOURIER TRANSFORM SPECTROSCOPY OF BiBr_3 BY LASER ABLATION IN A MULTIPASS CELL*
J. Bosmann, F. Peterß, Thomas F. Giesen and Guido W. Fuchs
- H27 – *A HIGH-PURITY PARA- H_2 SOURCE FOR THE STUDY OF COLD ION-MOLECULE CHEMISTRY*
Jakob M. Braun, Raphaël Hahn, Josef A. Agner, Hansjürg Schmutz, Daniel Zindel, and Frédéric Merkt
- H28 – *IMPROVING SPECTRAL ASSIGNMENT WITH NORMALIZING-FLOW COORDINATES*
Emil Vogt, Yahya Saleh, Álvaro Fernández Corral, Jochen Küpper, Andrey Yachmenev
- H29 – *CRAZY ACCURACIES FROM THE FIRST PRINCIPLE. LINE INTENSITIES AND LINE CENTERS*
O.L.Polyansky, I.I. Mizus, J. Tennyson and N.F. Zobov
- H30 – *CALCULATIONS OF COLLISION-INDUCED LINE-SHAPE PARAMETERS FOR N_2 -PERTURBED LINES IN HF*
J. Behrendt, H. Jóźwiak, and P. Wcisło
- H31 – *HYPERFINE ROVIBRATIONAL STATES OF H_3^+ IN A WEAK EXTERNAL MAGNETIC FIELD*
G. Avila, A. Sunaga, S. Komorovsky, and E. Mátyus
- H32 – *HIGH RESOLUTION X-RAY SPECTRA OF CH_2Cl_2 - A QUANTUM CHEMICAL SIMULATION*
T. Uhlíková and E. Muchová
- H33 – *AN EXACT OMEGA REPRESENTATION AS AN ADIABATIC TRANSFORMATION OF SPIN-ORBIT INTERACTIONS AND THEIR ASSOCIATED NON-ADIABATIC COUPLINGS: COMMON MISCONCEPTIONS*
R. P. Brady, S. N. Yurchenko, and J. Tennyson
- H34 – *AB INITIO LINE INTENSITIES OF ROVIBRATIONAL TRANSITIONS IN $\text{O}_2(X^3\Sigma_g^-)$*
M. Gancewski, H. Jóźwiak, H. Cybulski, and P. Wcisło
- H35 – *VIBRATIONAL SPECTRA OF 3,4-DIMETHYLMETHCATHINONE (3,4-DMMC)*
B. Kolářová, T. Uhlíková
- H36 – *ELECTRON SPIN-TORSION COUPLING IN THE OBLATE-TOP ACETONYL RADICAL*
O. Pirali, R. Chahbazian, and L. H. Coudert

I: Plenary

Wednesday, August 27, 9:00, Hörsaal I

Chair: Thérèse Huet

I1 – *HIGH RESOLUTION INFRARED SPECTROSCOPIES OF JET-COOLED LARGE MOLECULES RELEVANT FOR ASTRONOMICAL AND ATMOSPHERIC ISSUES* (9:00 – 9:45)

P. Asselin, S. Chawananon, O. Pirali, M. Goubet and A. Cuisset

I2 – *MOLECULAR SPECTROSCOPY IN HELIUM NANODROPLETS: NEW INSIGHTS AND OPPORTUNITIES* (9:45 – 10:30)

Wolfgang E. Ernst

J-I: Contributed Talks

Wednesday, August 27, 11:00, Hörsaal I

Chair: Silvia Spezzano

J-I.1 – *INVESTIGATING ENOLS CHEMISTRY IN THE INTERSTELLAR MEDIUM: ROTATIONAL SPECTROSCOPY AND INTERSTELLAR SEARCH OF (E)-1-PROPENOL* (11:00 – 11:15)

M. Nonne, M. Melosso, F. Tonolo, L. Bizzocchi, S. Alessandrini, J.-C. Guillemin, V. M. Rivilla and C. Puzzarini

J-I.2 – *TEMPERATURE-DEPENDENT PHOTODISSOCIATION RATES OF THE CH RADICAL* (11:15 – 11:30)

A. Sokolov, R. P. Brady, S. N. Yurchenko, and J. Tennyson

J-I.3 – *ROTATIONAL SPECTROSCOPY OF NAPHTHYLAMINES* (11:30 – 11:45)

Gayatri Batra, Colin Sueyoshi, Wenhao Sun, Mark D. Marshall, Helen O. Leung, Marie-Aline Martin-Drumel, Melanie Schnell

J-I.4 – *A MULTI-LEVEL EXCITATION DIAGRAM ANALYSIS OF VIBRATIONALLY EXCITED TiO IN THE ENVELOPE OF THE VARIABLE STAR χ CYG AT HIGH SPECTRAL RESOLUTION* (11:45 – 12:00)

E. Döring, J. H. Lacy, R. S. Giles, T. K. Greathouse, T.F. Giesen and G. W. Fuchs

J-I.5 – *SIMULATING SOLAR WIND-PAH COLLISIONS: A NEW PERSPECTIVE ON SMALL HYDROCARBON CATION FORMATION IN ASTROPHYSICAL ENVIRONMENTS* (12:00 – 12:15)

E. Dudás, P. Moretto-Capelle, M. Rapacioli and J-P. Champeaux

J-I.6 – *VIBRONIC AND OVERTONE BANDS OF HNC^+ AND HCN^+* (12:15 – 12:30)

M. Jiménez-Redondo, J. Palotás, H. A. Bunn, C. Schleif, P. Dohnal, O. Roncero, P. Caselli, and P. Jusko

J-II: Contributed Talks

Wednesday, August 27, 11:00, Hörsaal II

Chair: Wim Ubachs

J-II.1 – *CRYOGENIC OPTICAL CAVITY FOR HIGH-ACCURACY DOPPLER-LIMITED SPECTROSCOPY OF HYDROGEN* (11:00 – 11:15)

K. Stankiewicz, M. Makowski, M. Słowiński, K. L. Sołtys, B. Bednarski, H. Jóźwiak, N. Stolarczyk, M. Narożnik, D. Kierski, S. Wójtewicz, A. Cygan, G. Kowzan, P. Masłowski, M. Piwiński, D. Lisak, P. Wcisło

J-II.2 – *HIGH PRECISION MID-INFRARED VIBRATIONAL SPECTROSCOPY WITH COLD MOLECULES* (11:15 – 11:30)

R. Hahn, A. Bonifacio, M. Saffre, W. Dong, Y. Liu, S. Viel, M. N. Ngo, O. Lopez, E. Cantin, A. Amy-Klein, M. Manceau, B. Darquié

J-II.3 – *INELASTIC RECOIL SPECTROSCOPY: ROTATIONALLY RESOLVED SPECTROSCOPY OF A SINGLE POLYATOMIC MOLECULE* (11:30 – 11:45)

A. Calvin, S. Kresch, M. Brzeczek, L. Satterthwaite, D. Patterson

J-II.4 – *DETECTION AND QUANTIFICATION OF HNC AND HCN ISOMERS IN MOLECULAR PLASMAS REVEALED BY FREQUENCY COMB AND QCL SPECTROSCOPY* (11:45 – 12:00)

I. Sadiek, Simona Di Bernardo, Uwe Macherius, and Jean-Pierre H. van Helden

J-II.5 – *HIGH RESOLUTION SPECTROSCOPY OF $PF^{35}Cl_2$ AND $PF^{35}Cl^{37}Cl$ AND ISOTOPIC CHIRALITY* (12:00 – 12:15)

V. Horká-Zelenková, K. Keppler, A. Sieben, G. Seyfang, G. Wichmann, S. Albert, J. Stohner, and M. Quack

J-II.6 – *A DEEP ULTRAVIOLET MAGNETO-OPTICAL TRAP OF ALUMINIUM MONOFLUORIDE* (12:15 – 12:30)

J. E. Padilla-Castillo, J. Cai, P. Agarwal, P. Kukreja, R. Thomas, B. G. Sartakov, S. Truppe, G. Meijer and S. C. Wright

J-III: Contributed Talks

Wednesday, August 27, 11:00, Hörsaal III

Chair: Isabelle Kleiner

J-III.1 – *COMPLEX TUNNELLING DYNAMICS AND CONFORMATIONS IN 3,3,3-TRIFLUOROPROPANOL... WATER_N (N=1-4) CLUSTERS* (11:00 – 11:15)

Alex Mort, Colton D. Carlson, and Yunjie Xu

J-III.2 – *LIGAND EXCHANGE IN A SUPERSONIC EXPANSION* (11:15 – 11:30)

B. Hartwig, J. N. Hasselhorn, R. Tovtik, N. A. Simeth and D. A. Obenchain

J-III.3 – *STUDY OF GEARED MOTION IN WATER-AFFECTED METHYL INTERNAL ROTATION BY MICROWAVE SPECTROSCOPY* (11:30 – 11:45)

Xiaolong Yi, Yongtao Wang, and Haoran Li

- J-III.4 – *ELUCIDATING STRUCTURES AND NONCOVALENT INTERACTIONS IN MICRO-SOLVATED ALLYL PHENYL ETHER VIA ROTATIONAL SPECTROSCOPY* (11:45 – 12:00)
X.Wang, J.Li, J.-U. Grabow, and M. Schnell
- J-III.5 – *STEPWISE MICROSOLVATION STUDY OF PREBIOTIC AMINOACETONITRILE BY ROTATIONAL SPECTROSCOPY*: (12:00 – 12:15)
N. Jiang and M. Schnell
- J-III.6 – *WATER COMPLEXES ON A CYCLIC THIOETHER FROM BROADBAND ROTATIONAL SPECTROSCOPY* (12:15 – 12:30)
Farha Sajeev Hussain, Nouredin Osserian, Amanda L.Steber, and Cristóbal Pérez

K: Plenary

Thursday, August 28, 9:00, Hörsaal I

Chair: Jonathan Tennyson

- K1 – *PROBING NEW RADICAL SPECIES USING HIGH RESOLUTION THZ SPECTROSCOPY* (9:00 – 9:45)
O. Pirali, R. Chahbazian, L. Juppert, M.-A. Martin-Drumel
- K2 – *USING MOLECULAR SPECTROSCOPY TO INVESTIGATE THE EARTH'S ATMOSPHERE FROM ORBIT* (9:45 – 10:30)
Jeremy J. Harrison

L: Posters

Thursday, August 28, 11:00, Foyer

- L1 – *THE ROTATIONAL-TORSIONAL SPECTRUM OF SINGLY DEUTERATED HYDROGEN PEROXIDE HOOD*
D. Herberth, K.M.T. Yamada, and T.F. Giesen
- L2 – *HIGH RESOLUTION SPECTROSCOPY OF VIBRATIONAL TUNNELING DOUBLETS AND OVERTONES OF THE INVERSION IN ANILINE*
G. Wichmann, S. Albert, P. Lerch, K. Keppler, and M. Quack
- L3 – *A THEORETICAL LINE LIST FOR THE HOPO MOLECULE*
Sergei N. Yurchenko, Ryan Mok, Oleksyi Smola
- L4 – *A CRYOGENIC ION TRAP BEAMLINE AT HFML-FELIX FOR ASTROCHEMICAL STUDIES*
M. Gerlach, H. Kaur, P.A. Paunikar, K. Steenbakkers, D.B. Rap, S. Schlemmer, B. Redlich, and S. Brünken
- L5 – *DECIPHERING THE COMPLEXITY IN THE ROTATIONAL SPECTRUM OF DEUTERATED ETHYLENE GLYCOL*
Jordan A. Claus, Mattia Melosso, Agathe Maillard, Luca Bizzocchi, Vincenzo Barone and Cristina Puzzarini
- L6 – *MILLIMETER-WAVE SPECTRUM OF HYDANTOIN IN ITS VIBRATIONALLY EXCITED STATES*
Haruto Ishii, Kazuha Hirano, Hiroyuki Ozeki, and Kaori Kobayashi

- L7 – *ELUSIVE TAUTOMER OF ACETONE CHARACTERIZED BY ROTATIONAL SPECTROSCOPY*
L. Kolesníková, M. Kříž, K. Vávra, T. Uhlíková, P. Kania, Š. Urban, and J.-C. Guillemin
- L8 – *ROTATIONAL SPECTROSCOPY AS A TOOL TO STUDY VIBRATION-ROTATION INTERACTION: INVESTIGATIONS OF $^{13}\text{CH}_3\text{CN}$ AND $\text{CH}^{13}_3\text{CN}$ UP TO $v_8 = 2$ AND A SEARCH FOR $v_8 = 2$ TRANSITIONS TOWARD SAGITTARIUS B2(N)*
H. S. P. Müller, A. Belloche, F. Lewen, and S. Schlemmer
- L9 – *^{13}C - AND ^{15}N -MONOSUBSTITUTED ISOTOPOLOGUES OF HC_3N : CHARACTERIZATION OF THE RESONANCE SYSTEMS*
G. Panizzi, M. Nonne, L. Bizzocchi, M. Melosso, S. Alessandrini, and C. Puzzarini
- L10 – *HIGH-RESOLUTION INFRARED INVESTIGATIONS OF CIRCUMSTELLAR ENVIRONMENTS OF LATE-TYPE STARS USING SMALL MOLECULES AS PROBES*
G. W. Fuchs, Eileen Döring,
- L11 – *INVESTIGATION OF WATER-CONTAINING CLUSTERS WITH A 6-18 GHz CHIRPED-PULSE FOURIER TRANSFORM MICROWAVE SPECTROMETER*
S. Collignon, A. S. Bogomolov, B. M. Hays, N. Moazzen-Ahmadi, M. Herman, D. Lederer and C. Lauzin
- L12 – *CONFORMERS OF THE α -PINENE - WATER COMPLEX: ROTATIONAL SPECTROSCOPY AND ELECTRONIC STRUCTURE CALCULATIONS*
Arsh S. Hazrah, Colton D. Carlson, Mohamad H. Al-Jabiri, Yunjie Xu, and Wolfgang Jäger
- L13 – *INVESTIGATION ON NON-COVALENT INTERACTIONS IN 3-FLUOROBENZYLAMINE-WATER COMPLEXES BY MEANS OF MICROWAVE SPECTROSCOPY*
A. Maggio, P. Pinillos, W. Song, F. Sun, T. Coccia, Y. Liang, A. Maris, L. Evangelisti, W. Li, M. Zhou, and S. Melandri
- L14 – *ROTATIONAL SPECTROSCOPY AND TAUTOMERIC EQUILIBRIA IN COMPLEXES FORMED WITH ISOTHIAZOLINONE*
J. Li , D. Loru, W. Sun, L. Wang , and M. Schnell
- L15 – *STRUCTURE AND MICRO-SOLVATION OF A PROTOTYPE PYRANOSE MOLECULE: A ROTATIONAL SPECTROSCOPIC STUDY*
J. Ma, E.R. Alonso, A. Insausti, W. Jäger, Y. Xu and E.J.Cocinero
- L16 – *MID-INFRARED DETECTION OF MOLECULAR SPECIES IN REACTIVE PLASMAS USING A QUANTUM CASCADE LASER-BASED ABSORPTION SPECTROMETER*
Simona Di Bernardo, Ibrahim Sadiek, Uwe Macherius, and Jean-Pierre H. van Helden
- L17 – *PRECISE FREQUENCIES OF H_2^{16}O LINES PROTECTED FOR RADIO ASTRONOMY*
A. Altman, R. Tóbiás, A. S. Bogomolov, M.L. Diouf, F.M.J. Cozijn, A.G. Császár, C. Lauzin and W. Ubachs
- L18 – *ROVIBRATIONAL ASSIGNMENTS OF HIGHLY CONGESTED SPECTRA BASED ON VARIATIONAL CALCULATIONS: APPLICATION TO ETHYLENE (C_2H_4) AND CH_3D*
O. Ben Fathallah, A. Campargue, S. Beguier, D. Mondelain, L. Manceron, M. Rey, J. Vander Auwera

- L19 – *HIGH-RESOLUTION SPECTROSCOPY OF COMPLEX ORGANIC MOLECULES UNDER UV FIELDS*
A. Potapov, S. Schlemmer, H. S. P. Müller, and F. Lewen
- L20 – *DENSITY DEPENDENCE OF THE MEASURED LINE INTENSITY FOR O₂ TRANSITIONS*
H. Tran, J.T. Hodges, H. Fleurbaey, E. Adkins, E. C. Gross, J. Klemm, A. Campargue, D. Mondelain
- L21 – *ROTATIONAL SPECTROSCOPY OF EPIHODOHYDRIN AND THE ¹²⁷I NUCLEAR QUADRUPOLE COUPLING TENSOR*
W. Sun and M. Schnell
- L22 – *COMB-ASSISTED CAVITY RING-DOWN SPECTROSCOPY AT 2 μ*
M.A. Khan, E. Fasci, V. D’Agostino, S. Gravina, A. Castrillo, and L. Gianfrani
- L23 – *NEW LOOK AT PERTURBATIONS IN THE N₂(C³Π_U, V) ELECTRONIC STATE. INDIRECT PREDISSOCIATION THROUGH C’⁵Π_U AND 1⁷Σ_U⁺ STATES*
Laiz R. Ventura, Ramon S. da Silva, Jayr Amorim and Carlos E. Fellows
- L24 – *SYSTEMATIC AB INITIO CALCULATION OF ROVIBRATION LINELISTS AND EFFECTIVE HAMILTONIANS USING CANONICAL VAN VLECK OPERATOR PERTURBATION THEORY*
S.V. Krasnoshchekov, E.O. Dobrolyubov, I.M. Efremov
- L25 – *SATURATED ABSORPTION SPECTROSCOPY OF M1 TRANSITIONS OF ¹⁶O₂ IN THE 761-768nm*
Y.-Q. Cheng, Z.-T. Zhang, Y.-R. Xu, Y. Tan, A.-W. Liu and S.-M. Hu
- L26 – *ELECTRONIC SPECTRUM OF JET-COOLED CO₃⁻*
Masaru Fukushima
- L27 – *A COMPLETE AB INITIO SPECTROSCOPIC DATASET OF THE HYDROGEN MOLECULE FOR ASTROPHYSICAL STUDIES*
N. Stolarczyk, J. Behrendt, H. Jóźwiak, M. Słowiński, R. J. Hargreaves, I. E. Gordon, and P. Wcisło
- L28 – *HITRAN2024: MORE MOLECULES/ISOTOPOLOGUES, BROADER SPECTRAL AND DYNAMIC RANGES, MORE PARAMETERS, BETTER QUALITY*
I.E. Gordon, R. J. Hargreaves, F. M. Gomez, T. Bertin, M. O’Donnell and L. S. Rothman
- L29 – *NEW METROLOGICAL AMMONIA ABSORPTION LINE DATA NEAR 6500 cm⁻¹*
V. Gorshelev, J. Nwaboh, G. D. Banik, A. Pogany, F. Witt
- L30 – *LINE POSITIONS OF CH₃F IN THE 20 – 100 cm⁻¹ AND 1900 – 2400 cm⁻¹ SPECTRAL REGIONS*
H. Ziadi, M. Rey, J. Tison, B. Grouiez, A. Voute, L. Manceron, A. V. Nikitin, V. Boudon, H. Aroui and M. Rotger
- L31 – *MARVEL ANALYSIS OF THE MEASURED HIGH-RESOLUTION ROVIBRATIONAL AND ROVIBRONIC SPECTRA OF ¹²C¹⁶O MOLECULE*
Salman Mahmoud, Nayla El-Kork, Nariman Abu Elkher, Chenyi Tao, Mubarak Almehairbi, Malathe Samir Khalil, Rania Al Abdallah, Tibor Furtenbacher, Attila G. Császár, Aleksandra Stasik, Rafal Hakalla, Wim Ubachs, Robert W. Field, Nelson de Oliveira, Wojciech Szajna, Stanislaw Ryzner, Marzena I. Malicka, Olga P. Yurchenko, Sergey N. Yurchenko, and Jonathan Tennyson

- L32 – *HIGH RESOLUTION STUDY OF THE ν_{14} BAND OF PYRROLE (C_4H_5N) NEAR $14\ \mu m$*
C. Silva Tafur, A. Rizopoulos, and J. Vander Auwera
- L33 – *EXOMOL LINE LIST FOR THE $A^1\Pi-X^1\Sigma^+$ BAND SYSTEM OF $^{12}C^{16}O$ AT HIGH TEMPERATURE*
Chenyi Tao, Jonathan Tennyson, Sergei N. Yurchenko and Nayla El-Kork
- L34 – *CASDA24: LATEST UPDATES TO THE DIJON CALCULATED SPECTROSCOPIC DATABASES*
V. Boudon and C. Richard
- L35 – *THE ROTATIONAL CONFORMATIONAL BEHAVIORS OF PHENOL – THIOPHENOL HETERODIMER*
W. Li, C. Pérez, and A. Lesarri
- L36 – *THE THRESHOLD PHOTOELECTRON SPECTRUM OF THE THIOFORMYL RADICAL: EXPERIMENT AND MODELING*
M. Drissi, G. A. Garcia, L. H. Coudert, B. Gans, S. Boyé-Peronne, H. L. Le, M. Jiang, and J.-C. Loison

M: Minisymposium on Clocks and Metrology

Thursday, August 28, 14:00, Hörsaal I

Chair: Paolo De Natale

M1 – *COHERENCE, CLOCKS, AND FUNDAMENTAL PHYSICS* (14:15 – 15:00)
Jun Ye

MOLECULAR PHYSICS LECTURE

M2 – *MOLECULAR LATTICE CLOCKS* (15:00 – 15:30)
T. Zelevinsky

M3 – *HIGHLY CHARGED ION CLOCKS TO TEST FUNDAMENTAL PHYSICS* (15:30 – 16:00)
Piet O. Schmidt

N-I: Contributed Talks

Thursday, August 28, 16:30, Hörsaal I

Chair: Neil Reilly

N-I.1 – *QUANTITATIVE ABSORPTION SPECTROSCOPY OF ACETYLENE IN THE BLUE REGION* (16:30 – 16:45)
H. Fleurbaey, G. Méjean, S. Kassi, and A. Campargue

N-I.2 – *PRECISION SPECTROSCOPY AND FREQUENCY STABILIZATION USING A COMPACT DUAL-MODE CAVITY-ENHANCED ABSORPTION SPECTROMETER AT 1550 nm* (16:45 – 17:00)
W.-T. Wang, T.-P. Hua, Z.-T. Zhang, Z.-J. Yuan, Y.-R. Sun, A.-W. Liu, and S.-M. Hu

- N-I.3 – *SPECTROSCOPIC GAS TEMPERATURE AND CONCENTRATION DETERMINATION USING CARBON MONOXIDE LINE INTENSITIES* (17:00 – 17:15)
S. Wójtewicz, D. Lisak, V. D’Agostino, A. Cygan, M. Gibas, P. Wcisło, R. Ciuryło, K. Bielska
- N-I.4 – *LEAK-OUT SPECTROSCOPY OF RENNER-TELLER DISTORTED HNCS^+* (17:15 – 17:30)
M. Gerlach, J. van der Hulst, H. Kaur, G. C. Groenenboom and S. Brünken
- N-I.5 – *JET-COOLED ETHYLENE SPECTROSCOPY IN THE $5880\text{--}6200\text{ cm}^{-1}$ REGION TO STUDY COLD AND HOT BAND TRANSITIONS* (17:30 – 17:45)
S. Perot, J. Lecomte, N. Suas-David, L. Rutkowski, M. Rey, S. Kassi, and R. Georges
- N-I.6 – *A VERSATILE INSTRUMENT TO STUDY THE REACTIVITY AND SPECTROSCOPY OF ISOMER-SELECTED MOLECULAR IONS* (17:45 – 18:00)
C. Rossi, A. P. Rasmussen, B. Gans, J. Jašík, J. Žabka, and U. Jacovella

N-II: Contributed Talks

Thursday, August 28, 16:30, Hörsaal II

Chair: Sergey Yurchenko

- N-II.1 – *CS^{2+} : A COMPLEX MODEL FOR SPECTROSCOPIC APPLICATIONS* (16:30 – 16:45)
L. Hrubcík, T. Uhlíková,
- N-II.2 – *TEMPERATURE-DEPENDENT PHOTODISSOCIATION CROSS SECTIONS AND RATES FOR H_2O AND H_2S* (16:45 – 17:00)
Armando N. Perri, Alexander O. Mitrushchenkov, Sergei N. Yurchenko, and Jonathan Tennyson
- N-II.3 – *THE INVERSION-INTERNAL ROTATION-ROTATION PROGRAMME FOR THE METHYLAMINE MOLECULE* (17:00 – 17:15)
M. Kręglewski and I. Gulaczyk
- N-II.4 – *AI-GENERATED SOFTWARE SUITE APPLIED TO RO-VIBRATIONAL ANALYSIS OF HIGH-RESOLUTION FTIR SPECTRA OF THE ^{13}C -ENRICHED MIXTURE OF CHClF_2* (17:15 – 17:30)
E.O. Dobrolyubov, I.M. Efremov, S.V. Krasnoshchekov, V.B. Laptev, S.A. Klimin, and O.V. Naumenko
- N-II.5 – *METHYL INTERNAL ROTATION AND ^{14}N NUCLEAR QUADRUPOLE COUPLING EFFECTS IN THE MICROWAVE SPECTRUM OF 2-FLUORO-4-PICOLINE ANALYZED USING THE WESTERFIT PACKAGE* (17:30 – 17:45)
J.H. Westerfield, Mike Buttkus-Barth, and Ha Vinh Lam Nguyen
- N-II.6 – *COLLISIONAL EFFECTS IN ATMOSPHERIC SPECTRA THROUGH RIGOROUS QUANTUM SCATTERING CALCULATIONS* (17:45 – 18:00)
M. Gancewski, H. Jóźwiak, A. Olejnik, J. Behrendt, M. Żółtowski, and P. Wcisło

N-III: Contributed Talks

Thursday, August 28, 16:30, Hörsaal III

Chair: Guido Fuchs

- N-III.1 – *HOT MOLECULES, COLD VALVE: ENHANCING MOLECULE VAPORIZATION FOR ASTRO-CHEMISTRY SEARCHES* (16:30 – 16:45)
R.J.C. Roque, F. Ferreira, R.B.L. Vieira, N.M. Campos and S.R. Domingos
- N-III.2 – *TIME RESOLVED MID-INFRARED FREQUENCY COMB SPECTROSCOPY IN CO₂ PLASMA ENVIRONMENTS* (16:45 – 17:00)
M. Briend, D. Sadi, O. Guaitella and L. Rutkowski
- N-III.3 – *IR SPECTRA OF ASTROCHEMISTRY-RELATED RADICALS PRODUCED VIA HYDROGEN-ATOM REACTIONS USING PARA-HYDROGEN MATRIX ISOLATION* (17:00 – 17:15)
Yuan-Pern Lee
- N-III.4 – *ROVIBRATIONAL COMPUTATIONS FOR THE He₂ *a* ³Σ_u⁺, *b* ³Π_g AND *c* ³Σ_g⁺ STATES INCLUDING NON-ADIABATIC, RELATIVISTIC, AND QED CORRECTIONS AND COUPLINGS* (17:15 – 17:30)
Balázs Rácsai, Péter Jeszenszki, Ádám Margócsy, and Edit Mátyus
- N-III.5 – *INTEGRATED THEORETICAL AND EXPERIMENTAL INVESTIGATION: ACCURATE STRUCTURE OF NORCAMPHOR AND CONFORMATIONAL LANDSCAPE OF TIOPRONIN* (17:30 – 17:45)
L. Uribe, M. Mendolicchio, S. Mato, S. Municio, J.L. Alonso, E. R. Alonso, I. León, and V. Barone
- N-III.6 – *SPECTACLE – SPECTROSCOPY TAILORED ACTIVE LEARNING ALGORITHM FOR MACHINE LEARNING POTENTIALS* (17:45 – 18:00)
B. Schröder

O: Posters

Friday, August 29, 9:00, Foyer

- O1 – *ROTATIONAL SPECTROSCOPY OF METHYLALLENE AND SEARCH FOR IT IN SPACE*
H. S. P. Müller, J.-C. Guillemin, F. Lewen, and S. Schlemmer
- O2 – *ROTATIONAL SPECTROSCOPY OF CH₃C₃N: l-TYPE DOUBLING IN BENDING VIBRATIONS AND GROUND-STATE ANALYSIS OF ITS ISOTOPOLOGUES*
J. Koucký, M. Melosso, L. Bizzocchi, M. Nonne, S. Alessandrini and C. Puzzarini
- O3 – *BRANCHED ACYLIUM IONS: INFRARED ACTION-SPECTROSCOPIC STUDY OF C₂H₃CO⁺ AND C₂H₅CO⁺*
S. Thorwirth, M. Bast, P. C. Schmid, K. Steenbakkers, S. Brünken, O. Asvany, and S. Schlemmer
- O4 – *ASAP & ASAP² ANALYSIS OF THE IR-SPECTRUM OF CYCLOPENTADIENE*
L. Bonah, S. Thorwirth, S. Schlemmer, O. Pirali, M.-A. Martin-Drumel, J.-C. Guillemin, F. Tonolo, M. Melosso, L. Bizzocchi, C. P. Endres

- O5 – *HOCS⁺ AND HSCO⁺ SPECTROSCOPY*
J. L. Doménech, W.G.D.P. Silva, V. Lattanzi, S. Thorwirth, S. Schlemmer and O. Asvany
- O6 – *DESIGN AND PERFORMANCES OF THE LILLE ICE TERAHERTZ EXPERIMENT (LITE)*
M. Alieksieva, R. A. Motiyenko, G. Dekyndt and E. Dartois
- O7 – *INVESTIGATIONS ON ASTROPHYSICALLY RELEVANT NITRILES PRODUCED VIA DC PLATE DISCHARGE: TOWARDS HIGH-RESOLUTION REMPI SPECTROSCOPY OF AMINOACETONITRILE (NH₂CH₂CN)*
V. Grigorian, J. Jakob, S. Schwetje, M.A. Kaufmann, A. Breier, T.F. Giesen and G.W Fuchs
- O8 – *ROVIBRATIONAL OVERTONE AND COMBINATION BANDS OF THE HCNH⁺ ION*
M. Kassayová, M. Jiménez-Redondo, J. Sarka, P. Dohnal, J. Glosík, P. Caselli, and P. Jusko
- O9 – *NO²⁺ DICATION SPECTRAL MODEL FOR ANY KIND OF SPECTROSCOPIC USAGE*
J. Šturma and T. Uhlíková
- O10 – *COMPARISON OF ETHYLENE SPECTRA AT 10 μ m RECORDED BY FOURIER TRANSFORM AND FREQUENCY COMB SPECTROMETERS*
R. Vallon, H. Ziadi, C. Jacquemin, J. Tison, F. Lecasse, B. Parvitte, V. Zeninari and M. Rotger
- O11 – *MEASUREMENTS OF SELF-PERTURBED METHANE LINES IN THE ν_4 BAND BY DUAL-COMB SPECTROSCOPY*
N. Dricot, B. Vispoel, and M. Lepère
- O12 – *MEASUREMENTS OF THE INFRARED CROSS-SECTIONS OF POTENTIAL EXOPLANETARY BIOSIGNATURES: CHLOROIODOMETHANE AND 2-IODOPROPANE*
Muhammad Osama Ishtiaq, Orfeo Colebatch, Karine Le Bris, Paul J. Godin, and Kimberly Strong
- O13 – *QUANTITATIVE FTIR SPECTROSCOPY OF CORROSIVE AND UNSTABLE ATMOSPHERIC GASES : APPLICATION TO HNO₃, HONO AND HOBr*
A. Voute, W. Tchana-Betnga, A. Perrin, F. Kwabia-Tchana and L. Manceron
- O14 – *SIMPLIFIED MODELING OF ETHYLENE: IMPACT OF SYMMETRIC-TOP APPROXIMATION ON COLLISIONAL LINE BROADENING*
S. Clavier and J. Buldyreva
- O15 – *THEORETICAL SPECTROSCOPIC STUDY OF ISOPRENE AND AMYLENE*
S. Brahem, D. Missaoui, K. Sidi Said, S. Dalbouha, O. Yazidia, F. Najjar, N. Jaïdane, M.L.Senent
- O16 – *PREDICTION OF N₂-BROADENED LINE-SHAPE PARAMETERS OF CO₂ LINES USING REQUANTIZED CLASSICAL MOLECULAR DYNAMICS SIMULATIONS (rCMDS)*
L. Denis, H. Tran, M. Lepère, B. Vispoel and N.H. Ngo

- O17 – *LINEAR OPTICAL FEEDBACK CAVITY RING-DOWN SPECTROSCOPY AT 3- μ m WAVELENGTH: MEASURING RESIDUAL GASES IN AN ULTRA-HIGH VACUUM ENVIRONMENT*
V. D’Agostino, S. Gravina, E. Tofani, E. Fasci, A. Grado, A. Castrillo and L. Gianfrani
- O18 – *FIGURES OF MERIT QUANTIFYING PRECISION AND BIAS IN MULTISPECTRUM LEAST-SQUARES ANALYSES OF MEASURED SPECTRA*
E. C. Gross, A. J. Fleisher, and J. T. Hodges
- O19 – *NON-EMPIRICAL DERIVATION OF AN EFFECTIVE DIPOLE MOMENT OPERATOR FOR ASYMMETRIC TOPS*
E.O. Dobrolyubov, S.V. Krasnoshchekov
- O20 – *VIBRATIONAL SPECTRA, RESONANCES AND POLYADS OF C_2H_4 AND C_2D_4 PREDICTED BY THE FOURTH ORDER VIBRATIONAL OPERATOR PERTURBATION THEORY CVPT(4) AND THE A-VC1*
V. Le Bris, S.V. Krasnoshchekov, E.O. Dobrolyubov, I.M. Efremov, I.V. Polyakov, O. Coulaud, and D. Bégué
- O21 – *RELATIVISTIC QED CORRECTIONS TO THE CORRELATED NO-PAIR DIRAC-COULOMB(-BREIT) ENERGY*
Á. Nonn, and E. Mátyus,
- O22 – *AN ANALYSIS AND AN INTERPRETATION OF THE PHOTO-ELECTRON SPECTRA OF THE NITRATE ANION, NO_3^-*
M. Fukushima
- O23 – *BROADBAND MID-INFRARED SPECTROSCOPY IN A $CH_4 + O_2$ PLASMA GLOW DISCHARGE*
M. Briend, M. Budde, O. Guaitella and L. Rutkowski
- O24 – *TOWARDS THE MEASUREMENT OF ORBITAL ANGULAR MOMENTUM-ENABLED TRANSITIONS IN MOLECULES*
T. Jungnickel, M. Bahl, G.M. Koutentakis, M. Maslov, T. Gaßen, M. Encheva and O.H. Heckl
- O25 – *DEVELOPMENT OF SINGLE-PHOTON DOPPLER-FREE VUV/XUV SPECTROSCOPY EXPERIMENT*
M. H. Rayment, J. A. Agner, H. Schmutz, and F. Merkt
- O26 – *MOLECULAR SPECTROSCOPY EXPLOITING RESONANT FREQUENCIES OF AN OPTICAL CAVITY*
A. Cygan, S. Wójtewicz, H. Jóźwiak, G. Kowzan, N. Stolarczyk, K. Bielska, P. Wcisło, R. Ciuryło, D. Lisak
- O27 – *DIABATIC AND ADIABATIC APPROXIMATION*
A. Dimova, V. Stoyanov, A. Pashov
- O28 – *EXPERIMENTAL AND THEORETICAL STUDY OF THE GROUND AND LOWEST EXCITED STATES OF THE $NaSr$ MOLECULE*
P. Kowalczyk, J. Szczepkowski, M. Gronowski, M. Olko, R. Vexiau, M. Tomza, O. Dulieu, and W. Jastrzebski
- O29 – *LOW-TEMPERATURE ABSORPTION SPECTROSCOPY FOR SIMULTANEOUS RETRIEVAL OF VAPOR PRESSURE AND TRANSITION INTENSITIES.*
D. Chernenko, F. Pastierovič, and P. Čermák

- O30 – *FOURIER TRANSFORM CAVITY RING-DOWN SPECTROSCOPY: PRECISE RETRIEVAL OF CO-AR LINE PROFILES*
R. Dubroeuq, D. Charczun, P. Masłowski and L. Rutkowski
- O31 – *TOWARDS THE DETECTION OF ENANTIOMERIC EXCESS OF CHIRAL MOLECULES USING PHOTOELECTRON CIRCULAR DICHROISM IN A MOLECULAR BEAM*
S. Schwetje, V. Grigorian, J. Jakob, M. A. Kaufmann, A. Breier, T. F. Giesen and G. W. Fuchs
- O32 – *ACCURATE MEASUREMENT OF TRACE MOISTURE IN GAS USING LASER-WAVELENGTH-TUNED CRDS*
H. Abe
- O33 – *HIGH-RESOLUTION UV SPECTROSCOPY OF CHIRAL CANDIDATES FOR ESST APPLICATIONS*
Shilpa Yadav, JuHyeon Lee, Elahe Abdiha, Nadia González Rodríguez, Boris G. Sartakov, Gerard Meijer, Sandra Eibenberger-Arias
- O34 – *NUCLEAR SPIN ISOMER SELECTION VIA LEAK-OUT SPECTROSCOPY*
O. Asvany, D. Gupta, W.G.D.P. Silva, S.J.P. Marlton, T. Salomon, P.C. Schmid and S. Schlemmer
- O35 – *LARGE AMPLITUDE MOTION AND GEOMETRY INVESTIGATION FOR SIMILAR COMPLEXES OF 3-PHENYLPROPIONALDEHYDE- H_2O AND 3-PHENYLPROPIONALDEHYDE- H_2S*
M. Li, W. Li, A. Lesarri, J.-U. Grabow
- O36 – *PRECISION SPECTROSCOPY OF THE FINE-STRUCTURE IN THE $a^3\Sigma_u^+(v=0)$ AND $c^3\Sigma_g^+(v=4)$ STATES OF THE HELIUM DIMER*
V. Wirth, M. Holdener, and F. Merkt

P: Plenary

Friday, August 29, 11:00, Hörsaal I

Chair: Thomas Giesen

- P1 – *COHERENT CONTROL OF CHIRAL MOLECULES* (11:00 – 11:45)
S. Eibenberger-Arias
- P2 – *RECENT ADVANCES IN THE QUANTUM-CHEMICAL CALCULATIONS OF SPECTROSCOPIC PARAMETERS FOR ROVIBRATIONAL SPECTROSCOPY* (11:45 – 12:30)
Jürgen Gauss

Hours	Aug 24 2025 Sunday	Aug 25 2025 Monday	Aug 26 2025 Tuesday	Aug 27 2025 Wednesday	Aug 28 2025 Thursday	Aug 29 2025 Friday
8:30		Welcome				
9:00		A: Plenary Marsha I. Lester Laura Kreidberg	E: Plenary Sonia Melandri Jérôme Loreau	I: Plenary Pierre Asselin Wolfgang E. Ernst	K: Plenary Olivier Pirali Jeremy Harrison	O: Posters
10:30		Coffee break	Coffee break	Coffee break	Coffee break	Coffee break
11:00		B: Posters	F: Contributed Talks	J: Contributed Talks	L: Posters	P: Plenary Sandra Eibenberger-Arias Jürgen Gauss
12:30		Lunch	Lunch	Lunch	Lunch	Lunch
14:00		C: Minisymposium Interstellar Astrophysics Arshia Jacob Laurent Margulès Maria-Luisa Senent Silvia Spezzano	G: Minisymposium Non-Covalent Interactions José Andrés Fernández Qian Gou Melanie Schnell	14:30	M: Minisymposium Clocks and Metrology Molecular Physics Lecture Jun Ye Tanya Zelevinsky Piet Schmidt	
16:00	Welcome & Registration	Coffee break	Coffee break	Cologne Sightseeing Tour	Coffee break	
16:30		D: Contributed Talks	H: Posters		N: Contributed Talks	
18:00						
19:30	Welcome Talk: Stefanie Walch-Gassner			18:30 Conference Dinner Haus Unkelbach		
20:00						
			Public Evening Talk: Markus Röllig			
Hörsaal I		Hörsaal I	Hörsaal I	Hörsaal I, II, or III	Foyer	Foyer