

CONFERENCE PROGRAM

DAY 1, Wednesday 16 June

7:30 Registration

9:00 WELCOME.....Laurence S. Rothman

SESSION I: Databases-1

Chair: A. Barbe

9:10 Spectroscopic Molecular Databases: Evolution and Revolution
.....L. S. Rothman

9:25 The GEISA Database 2009 Edition: Update Description and Assessment
of Spectroscopic Parameters Through Hyperspectral Remote Sensing
ApplicationsN. Jacquinet

9:40 Blended HITRAN and other Spectra Databases for Modeling Emission-based
LIDARD. Plutov

9:55 Calculating the Spectroscopic Behaviour of Hot Molecules J. Tennyson

10:25 High-Accuracy *ab initio* Water Line Intensities L. Lodi

10:40 CDSD-4000: High-Temperature Spectroscopic CO₂ Databank. S.A. Tashkun

10:55 *Coffee Break*

SESSION II: Remote Sensing

Chair: K. Chance

11:15 Line Parameters and Forward Calculation for Retrieving Carbon Dioxide
and Methane from GOSAT dataT. Yokota

11:45 MIPAS: New Results and Spectroscopy IssuesJ. Orphal

12:00 The Atmospheric Chemistry Experiment, ACE: Status and Spectroscopic
IssuesP. F. Bernath

12:15 Spectroscopy for the Atmospheric Chemistry Experiment (ACE) C. Boone

12:30 *Lunch Served*

13:45 Spectroscopic Issues in the Data Analysis of REFIR-PAD Measurements
Performed During the 2009 Ground-Based CampaignsG. Bianchini

14:00 Polar Mesospheric Clouds and Cosmic Dust: Three Years of SOFIE
MeasurementsM. McHugh

14:15 LBL Models: State of the Art and PerspectiveB. A. Fomin

14:30 *Coffee Break*

SESSION III: Laboratory Spectroscopy-1

Chair: L. R. Brown

14:45 The Absorption Spectrum of Methane Between 1.27 and 1.71 μm by High
Sensitivity CRDS at 80 K and 300 K. Importance of the CH₃D Contribution
in the 1.58 μm Transparency WindowA. Campargue

15:15 The $4\nu_3$ Spectral Region of Methane D. Chris Benner

15:30 Line Strengths and Self-Broadening of Pure Rotational Lines of
Carbon Monoxide and Nitrous Oxide Measured by Terahertz Time-Domain
SpectroscopyW. Aenchbacher

15:45 Submillimeter-Wave and Far-Infrared Spectroscopy of High-*J* Transitions of
AmmoniaS. Yu

16:00-18:00 **POSTER SESSION 1**

DAY 2, Thursday 17 June

SESSION IV: Databases-2

Chair: M. A. H. Smith

9:00 Error Propagation from Line Parameters to Spectra Simulations. Illustration
on High Temperature MethaneJ.-P. Champion

9:30 High-Lying Rotational Levels of Water Obtained by FIR Emission
SpectroscopyL. Coudert

9:45 Assignment of the $5\nu_4$ and $\nu_2 + 4\nu_4$ band system of ¹²CH₄ in the Region
6287-6550 cm^{-1} Vi. G. Tyuterev

10:00 Towards New Line List of Magnetic Dipole and Electric Quadrupole
Transitions in the $a^1\Delta_g \leftarrow X^3\Sigma_g^-$ Band of Oxygen I. E. Gordon

10:15 Update for Methyl Chloride at 3 μm A. Perrin

10:30 Indices of Refraction of Absorptive Aerosol - Their Importance and
Complexity S. Massie

10:45 *Coffee Break*

SESSION V: Line Shapes

Chair: P. F. Bernath

- 11:00 The Importance of Being Earnest about Line Shapes L. R. Brown
11:10 Improvements, Corrections and New Developments in Semiclassical Theories
of Collisional Line Broadening J. Buldyreva
11:40 Spectral Shapes Modeling and Remote Sensing of Greenhouse Gases: Toward
the OCO and GOSAT Experiments and Future HITRAN Issues
..... J.-M. Hartmann
12:10 An Improved Version of the CO₂ Line-mixing Database and Software:
Update and Extension A. L. Laraia
12:25 *Lunch Served*

Chair: J.-M. Flaud

- 13:45 The Collision-Broadened Line Shape of CO₂ via the Complex Robert-
Bonamy Method: The Complexity of Simplicity R. R. Gamache
14:00 Uncertainties Associated with Theoretically Calculated N₂ Broadened Half-
Widths of H₂O Lines Q. Ma
14:15 Complex Robert-Bonamy Calculation of H₂O Broadened by N₂, O₂ and Air
Made with Realistic Trajectories J. Lamouroux
14:30 N₂ Collisional Broadening of Methane in the THz Region Measured at the
SOLEIL Synchrotron V. Boudon
14:45 N₂-broadened ¹³CH₄ at 80 to 296 K M. A. H. Smith
15:00 Formaldehyde Broadening Coefficients: the 5.7 μ m and 3.6 μ m
Bands D. Jacquemart

15:15-17:15 **POSTER SESSION 2**

18:30 *Banquet*

DAY 3, Friday 18 June

SESSION VI: Database Structure

Chair: I. E. Gordon

- 9:00 Information System to Access HITRAN via the Internet Yu. L. Babikov
9:15 New Tools for Storing and Accessing Spectroscopic Data: the Development
of an XML Schema for the HITRAN Database C. Hill
9:30 Publishing Tools for a Distributed Information System A. Z. Fazliev

- 9:45 JPL Catalog Upgrades: New Tools, New Formats and New
Interfaces B. J. Drouin
10:00 *SPECTRAFACTORY.NET*: a Database of Molecular Model Spectra for
Astronomers J. Cami
10:15 Representing Scientific Databases Online A. Markwick
10:30 *Coffee Break*

SESSION VII: Planetary Atmospheres

Chair: J. Vander Auwera

- 10:45 Recent Advances in the Spectroscopy of Planetary and Exoplanetary
Atmospheres : What is out There? P. Drossart
11:15 Titan's Neutral Atmospheric Chemistry from the Astronomical Point of
View A. Coustenis
11:45 High-Resolution Analysis of Various Propane Bands: Modeling of Titan's
Infrared Spectrum J.-M. Flaud
12:15 *Lunch Served*

SESSION VIII: Laboratory Spectroscopy-2

Chair: D. Jacquemart

- 13:25 High-Resolution Tunable Diode Laser Spectroscopic Parameters for
Atmospheric Applications and Comparisons with HITRAN V. Zeninari
13:45 Laser Spectroscopic Study of Ozone in the 100 \leftarrow 000 Band for the SWIFT
Instrument M. Guinet
14:00 New Acetone Absorption Cross Sections for ACE Retrievals N. Allen
14:15 Infrared Absorption Cross Sections of ClOOCl - Laboratory Work and
Application in MIPAS-B Measurements M. Birk
14:30 Spectral Line Parameters in the ν_9 Band of Ethane V. Malathy Devi
14:45 A THz Photomixing Synthesizer Based on a Fiber Frequency
Comb Dedicated to High Resolution Spectroscopy of Atmospheric
Compounds A. Cuisset
15:00 Toward a Global Model of Low-Lying Vibrational States of CH₃CN:
Overview and Interactions in the $v_4 = 1$ State at 920 cm⁻¹ with Nearby
States Holger S. P. M