

Ninth Biennial HITRAN Conference, Harvard-Smithsonian Center for Astrophysics, Cambridge MA

Day 1, Monday 26 June

	Session	Presenter	Paper Title
7:30	Registration		
9:00	Welcome	Rothman	
9:10	Keynote	Murray	
9:30	Session 1 Laboratory Spectroscopy (morning)	Rothman	The Quest for Consistency and Accuracy of Spectroscopic Parameters in HITRAN: Bridge between Archive and Application
10:00		Orphal	Diode- and difference-frequency laser studies of atmospheric molecules in the near-and mid-infrared: H ₂ O, NO ₂ and NH ₃
10:30		Wagner	Water Pressure Broadening: A Never-ending Story
		<i>break</i>	
11:15		Barbe	Analysis of High-resolution Infrared CW-CRDS Spectra of Ozone in the 6000 to 6750 cm ⁻¹ Spectral Region
11:45	Perrin	Relief is on the Way: Status of the Line Positions and Intensities for Nitric Acid	
<i>Lunch Served</i>			
13:30	Session 2 Theory (afternoon)	Coudert	The Water Molecule: Line Position and Line Intensity Analyses up to the Second Triad
14:00		Boudon	Global Frequency and Infrared Intensity Analysis of ¹² CH ₄ Lines in the 900–4800 cm ⁻¹ Region
14:30		Gamache	Temperature dependence of N ₂ -, O ₂ -, and air-broadened half-widths of water vapor transitions: insight from theory and comparison with measurement
15:00		Ma	Modification of the Robert-Bonamy formalism and further refinements required
15:30		Paynter	Using Laboratory FT-IR Spectrometer Measurements and HITRAN to Derive the Pure Water Vapour Continuum Between 3000 cm ⁻¹ and 8000 cm ⁻¹
16:00 - 18:00	Poster Session 1 (afternoon)	Tennyson	Water Line Parameters from Refitted Spectra Using a New Fitting Technique
		Zobov	Labeling of H ₂ ¹⁶ O, H ₂ ¹⁷ O and H ₂ ¹⁸ O synthetic line lists in the 0 – 26000 cm ⁻¹ range
		Baranov	The experimental investigation of the water vapor discrete and continuum absorption in the 8 to 12 mm region at temperatures from 311 K to 352 K
		Brünken	Measurement and Analysis of High-resolution TeraHertz Spectra of HDO and D ₂ O
		Gordon	A New "Diet" for Air-broadened Half-widths of Water Vapor in the HITRAN2004 Compilation
		Hodges	High-precision measurements of H ₂ O line intensities and broadening coefficients using frequency-stabilized cavity ring-down spectroscopy
		Miller	Line Mixing in Pure CO ₂ Absorption at 6348 cm ⁻¹
		Tipping	Theoretical studies of the wet continuum in the terahertz windows
		Gamache	A Semi-empirical Adjustment of the Vibrational Dependence of the Polarizability of Ozone for use in Line Shift Calculations
		Devi	Spectroscopic Study of Line Mixing Effects in the ν ₂ + ν ₃ Band of Methane
		Devi	Measurements and Theoretical Calculations of Self- and Air-Broadening and Shift Coefficients in the ν ₂ Band of CH ₃ D
		Benner	High Accuracy Laboratory Spectroscopy for Atmospheric Applications
		Barbe	Observations of SO ₂ spectra with a quantum cascade laser spectrometer around 1090 and 1160 cm ⁻¹ . Comparison with the HITRAN database and updated calculations
		Jacquemart	Acetylene Line Parameters in the 3.8-μm Spectral Region
		Vander Auwera	Absolute Line Intensities in the ν ₂ Band, and Ground-state Electric Dipole Moment, of HOBr
Le Bris	Infrared absorption cross section of CFC-113: calculations and measurements		
Gross	Developing a Phenomenological Model of Infrared Emissions from Detonation Fireballs for Explosives Identification		
19:00	<i>Dinner, Inn at Harvard</i>		

Day 2, Tuesday 27 June

	Session	Presenter	Paper Title
9:00	Session 3 Remote Sensing (morning)	Flaud	Synergistic use of different atmospheric instruments: What about the spectral parameters
9:30		Boone	Linelist Needs for the Atmospheric Chemistry Experiment
10:00		Sen	CO ₂ Spectroscopy Evaluation using FTS Spectra
			<i>break</i>
11:00		Brown	Infrared Laboratory Spectroscopy of CH ₄ and CH ₃ D for Atmospheric Remote Sensing
11:30	Smith	Spectroscopic parameter requirements for remote sensing of terrestrial planets	
		<i>Lunch Served</i>	
13:30	Session 4 Laboratory Spectroscopy (afternoon)	Plusquellic	THz Studies of Water Vapor
14:00		Daumont	HDO and D ₂ O long path spectroscopy: Ongoing Work of the Brussels-Reims Team
14:30		Drouin	Air-broadening Ozone Linewidths in the Submillimeter Wavelengths
15:00		Jacquemart	Methyl Bromide Line Parameters in the 7.5- and 10- μ m Spectral Region
15:30		Xu	High Resolution Assignment of the ν_{14} and ν_{16} Bands in the 10- μ m Region for Trans-Acrolein
16:00 - 18:00	Poster Session 2 (afternoon)	Tennyson	Analysis of the Accuracy of Line Positions and Intensities of HDO Transitions in HITRAN 2004
		Rotger	Analysis of the spectrum of ethylene in the 800–1500 cm ⁻¹ region using tensorial formalism: frequencies and intensities
		Goldman	Improved Line Parameters for the $X^1\Sigma_g^+$ (1-0) IR Quadrupolar Transitions of ¹⁴ N ₂
		Carleer	Reinvestigation of the ¹⁶ O ₂ atmospheric A band by high-resolution Fourier transform spectroscopy
		Payne	Assessment of microwave line parameters for oxygen: Comparisons between models and atmospheric measurements
		Shephard	Implications for ν_2 and ν_3 CO ₂ line parameters from atmospheric remote Sensing
		Toth	Line Strengths and Self-broadening Coefficients of CO ₂ from 4600 to 7000 cm ⁻¹
		Jucks	The Far Infrared Outgoing Longwave Radiation (OLR) is Finally Observed
		Bernath	The Atmospheric Chemistry Experiment (ACE): Status and Results
		Fally	UV Fourier transform absorption cross-sections of benzene, toluene, ortho-, meta-, and para-xylene
		Chance	Global Measurements of OCIO, BrO, HCHO, and CHO-CHO from the Ozone Monitoring Instrument on EOS Aura
		Liu	The effects of different ozone cross sections on GOME ozone profile retrievals
		Gibson	Temperature Dependence of the O ₂ Schumann-Runge Continuum Photoabsorption Cross Section from a Coupled-channel Perspective
		Stark	High-resolution Photoabsorption Cross-section Measurements of Sulfur Dioxide between 198 nm and 325 nm
		Csaszar	ASpecT: Active Spectroscopic Tables
McHugh	Free, Fast and Accurate Online Calculation of Spectral Absorption and Radiance at www.gats-inc.com		
Beloborodov	Use of HITRAN and UVACS databases for the task of precision ambient air control		
Martin-Torres	Spectroscopic needs for NLTE Radiative Transfer modeling in Planetary Atmospheres		

Day 3 (half-day), Wednesday 28 June

	Session	Presenter	Paper Title
9:00	Session 5 Database (morning)	Müller	Recent Developments in the Cologne Database for Molecular Spectroscopy, CDMS, and the need for further Laboratory Spectroscopic Data
9:30		Jacquinet-Husson	Assessment of the GEISA and GEISA/IASI-03 Spectroscopic Data Quality: through Comparisons with other Public Database Archives
10:00		Tennyson	A Comprehensive Database for Water Spectra
			<i>break</i>
10:45		Massie	New cross sections, indices of refraction, and reflectance spectra of atmospheric interest
11:15		Harde	MolExplorer: A New Tool for Computation and Display of Spectra from the HITRAN Database
11:45	Dubernet	First Definition and Implementation of Standards for the Exchange of Atomic and Molecular Data	

End of Meeting