

Jovan Tadić, PhD

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EDUCATIONAL HISTORY

B.S. in Chemistry, 1998	The Faculty of Chemistry, University of Belgrade, Serbia
M.S. in Environmental Chemistry, 2001	The Faculty of Chemistry, University of Belgrade, Serbia
Ph.D. in Physical Chemistry, 2003	Max Planck Institute for Atmospheric Chemistry, Germany/The Faculty of Chemistry, University of Belgrade, Serbia
Postdoctoral Research 2010-2013	NASA Ames Research Center, USA
Postdoctoral Research 2013-2015	Department of Global Ecology, Carnegie Institution for Science, USA

Certificates/Specializations:

Programming in Python	High Tech Academy, Santa Clara, USA
Programming in R	John Hopkins University through Coursera
MySQL	SMB School of Modern Business
Microsoft SQL server	High Tech Academy, Santa Clara, USA
Machine learning	Stanford University through Coursera

PERSONAL STATEMENT

In 2003 I defended my PhD thesis in organic/physical/atmospheric chemistry and since then have worked in different fields, from industry to fundamental research.

I am proficient in: laboratory work and field measurements in atmospheric chemistry, statistical and geospatial data analysis; mapping in-situ and remote sensing/satellite data; environmental chemistry; free radical chemistry; photochemistry; geostatistics; development of analytical instruments; synthesis of biodiesel and other biofuels; development of green technologies; usage of waste materials, teaching.

Key points:

- More than 80 flights of instrumented aircraft (CO₂, CH₄, H₂O, MMS), Alpha Jet (including flight missions planning, data post-processing, instrument maintenance and publishing).
- Development of geostatistical tools for spatial data analysis using various kriging schemes and machine learning
- Maintenance and design of analytical instruments, including CRDS, luminometers, FTIR, UV spectrometers, nephelometers, etc.
- Programming in Matlab, MySQL, R and Python

WORK EXPERIENCE

Job Title: **Senior Research Associate**

Dates of employment: March 2015-present

Company name: Carnegie Institution for Science, Department of Global Ecology, Stanford

Location: Stanford, CA 94305, USA

Responsibilities: Application of geostatistical and machine learning tools in the analysis of atmospheric in-situ and remote sensing data, interpolations and understanding of spatial data structures. Analysis/mapping of satellite data including chlorophyll fluorescence and total column CO₂ (XCO₂) using GOSAT/ACOS and GOME-2 satellite data. Urban outflow quantification problem. Programming in Matlab.

Job Title: **Senior Research Associate**

Dates of employment: October 2012 – March 2013

Company name: Bay Area Environmental Research Institute

Location: Moffett Field, CA 94035, USA

Responsibilities: Studying urban outflow quantification problem with emphasize on greenhouse gases (CO₂, CH₄ and H₂O). Improving airborne sampling protocols. Participation in DISCOVER-AQ NASA mission.

Job Title: Senior postdoctoral scientist

Dates of employment: October 2010 - October 2012

Company name: NASA Ames Research Center

Location: Moffett Field, CA 94035, USA

Responsibilities: Studying greenhouse gases (CO₂, CH₄ and H₂O) sources and sinks using in-house developed airborne platform, data analysis and interpretation, validation of satellite measurements, analytical instruments maintenance and development, flight pattern design.

Job Title: Associate Professor

Dates of employment: 2010

Company name: Faculty for Applied Ecology "Futura", University Singidunum

Location: Lazarevacki drum 13-15 Belgrade, Serbia (www.futura.edu.rs)

Responsibilities: Teaching course 'Chemistry of Water Pollution'.

Job Title: Research and Development Manager

Dates of employment: 2004-2010

Company name: Ortek technology LTD

Location: Takovska 6/2, 11000 Belgrade, Serbia

Responsibilities: Developing protocols for the synthesis of new chemical products, applying new technologies and optimizing existing synthetic protocols. Implementation/commercialization of new green technologies (production of pavement and façade tiles based on waste glass, fly ash, polyester resins and synthesis of additives for the reduction of water/cement ratio, increase of compressive strength, acid-resistance, hydrophobicity), manufacturing of geopolymers from fly ash, recycling of PET by partial depolymerisation, manufacturing of biodiesel from waste source materials (with high FFA and water content), etc.

Job Title: Researcher

Dates of employment: 2002-2004

Company name: Institute for Chemistry, Technology and Metallurgy

Location: Studentski trg 14-16, Belgrade, Serbia

Responsibilities: Research in the area of liquid-phase photochemistry, implementation of photochemistry as a synthetic tool in organic synthesis.

Job Title: Consultant

Dates of employment: 2001

Company name: Berthold detection systems – Serbian branch office

Location: Belgrade, Serbia

Responsibilities: Participation at seminars/conferences/exhibitions to support scientific aspects of the technique and whole line of products/bio-medical equipment based on luminometry, manufactured by Berthold Detection systems, Pforzheim, Germany.

Job Title: Researcher

Dates of employment: 1998-2001

Company name: Max Planck Institute for Atmospheric Chemistry

Location: Mainz, Germany

Responsibilities: Laboratory examinations of several, environmentally important carbonyl compounds - free radical precursors in urban troposphere, writing reports as a part of pan-European RADICAL projects, kinetic and environmental modelling. FTIR and UV/Vis instruments maintenance.

EDUCATION

PhD in Chemistry

Max Planck Institute for Atmospheric chemistry, Mainz, Germany/The Faculty of chemistry, University of Belgrade, Serbia (2001-2003)

Dissertation project: Photochemical and photophysical processes of selected carbonyl compounds at different partial pressures of oxygen.

Master in Chemistry

The Faculty of Chemistry, University of Belgrade, Serbia (2000-2001)

Fields of expertise: Photochemistry, Atmospheric chemistry, free radical chemistry, environmental chemistry

Bachelor of Science

The Faculty of Chemistry, University of Belgrade, Serbia (1993-1998)

PERSONAL INTERESTS (ADDITIONAL SKILLS)**Language skills**

English: proficient

Serbian: mother tongue

Computer skills and competences

I am proficient in data processing, modelling, calculations, statistics. I am very familiar with wide array of scientific software packages, Matlab, Python, MySQL, Sigma plot, Bomem grams, Kinetics, Isis draw, Facsimile, Pythia, all components of MS Office package, etc.

Technical skills and competences

I am well acquainted with various analytical instruments and other devices, spectrophotometers, spectroscopes, mixing devices, pumps, optical devices of different kinds, luminometers, light sources, etc. In addition, many kinds of industrial machines, vibrating units, mixers, vacuum forming machines, presses, etc., are very well known to me. The work in NASA provided an opportunity for me to deal with very specific problems related to airborne measurements.

Organisational skills and competences

I have all skills required to independently organize scientific research, write reports, papers, catch deadlines, etc. At Ortek technology LTD I have been in position to organize a network of collaborators, to establish new manufacturing lines, coordinate multidisciplinary teams, communicate with various industrial and research institutions, etc.

Additional information

I am member of Mensa International (IQ 156).

I have a valid C driving licence.

Awards:

- Special award of The Serbian Chemical Society in 1999
- NASA Ames Honor Award 2011 for the excellence in category group/team
- NASA Honor Award 2012 for the RRV experiment

REFERENCES

Dr. Max Loewenstein, Senior Research Scientist

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Earth Science division

NASA Ames Research Center

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Dr. Geert Moortgat, ex-leader of the group for Kinetics and Photochemistry at Max Planck Institute (moo@mpch-mainz.mpg.de, or geert.moortgat@mpic.de)
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Faculty of Chemistry, University of Belgrade
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PUBLICATIONS:

1. **J. Tadić**, I. Juranić and G. K. Moortgat, Photooxidation of *n*-hexanal in air, *Molecules*, 6, 287-299 (2001).
2. **J. Tadić**, I. Juranić and G. K. Moortgat, Photooxidation of selected carbonyl compounds in air: *n*-butanal and *n*-pentanal, *Journal of photochemistry and photobiology A: Chemistry*, 143 (2001), 169-179.
3. W. Junkermann, C. Brühl, D. Perner, E. Eckstein, T. Trautmann, B. Früh, R. Dlugi, T. Gori, A. Ruggaber, J. Reuder, M. Zelger, A. Hofzumahaus, A. Kraus, F. Rohrer, D. Brüning, G. Moortgat, A. Horowitz, and **J. Tadić** Actinic Radiation and Photolysis Processes in the Lower Troposphere: Effect of Clouds and Aerosols, *J. Atm. Chem.* 42, 413-441 (2002).
4. **J. Tadić**, I. Juranić, G. K. Moortgat, Photooxidation of *n*-heptanal in air: Norrish type I and II processes and quantum yield total pressure dependency, *J. Chem. Soc., Perkin Trans.2*, 2002, 135-140.
5. Moortgat G. K., Final report on EU project RADICAL: "Evaluation of radical sources in atmospheric chemistry through chamber and laboratory studies" ENV4-CT97-0419, March 2000.
6. **J. Tadić**, G. K. Moortgat and Klaus Wirtz: Photooxidation of glyoxal in air, *Journal of photochemistry and photobiology A: Chemistry*, Volume 177, Issues 2-3, 25 January 2006, Pages 116-124.
7. **J. Tadić**, Lai Xu, K.N. Houk and G. K. Moortgat, Photooxidation of *n*-Octanal in air: Experimental and theoretical study, *J. Org. Chem.*, 2011, 76 (6), pp 1614-1620.
8. **J. Tadić** and V. Tadić, Tik tak, *Serbian Chemical Reviews*, 52(4), 2011.
9. **J. Tadić**; Moortgat, Geert; Loewenstein, Max; Bera, Partha; Yates, Emma; Lee, Timothy, Photochemistry and Photophysics of *n*-butanal, 3-methylbutanal and 3,3-dimethylbutanal: Experimental and Theoretical Study, *J. Phys. Chem. A*, Special issue, Nov 14, 2011.
10. Emma L. Yates, Max Lowenstein, Laura T. Iraci, **Jovan Tadić**, Edwin J. Sheffner, Kathleen Schiro, Kuze Akihiko, Carbon dioxide and methane at a desert site – a case study at Railroad Valley playa, Nevada, USA, *Atmosphere*, 2011, 2, 702-714; doi:10.3390/atmos2040702.

11. **J. Tadić** and Lai Xu, Ab Initio and Density Functional Theory Study of Keto–Enol Equilibria of Deltic Acid in Gas and Aqueous Solution Phase: A Bimolecular Proton Transfer Mechanism, *J. Org. Chem.* 2012 Sep 6: doi 22954314.
12. **J. M. Tadić**, M. Loewenstein, C. Frankenberg, L. T. Iraci, E. L. Yates, W. Gore, and A. Kuze, A comparison of in-situ aircraft measurements of carbon dioxide to GOSAT data measured over Railroad Valley playa, Nevada, USA, *Atmos. Meas. Tech. Discuss.*, 5, 5641–5664, 2012.
13. Emma L. Yates, M. C. Roby, L. T. Iraci, M. S. Johnson, P. J. Reddy, **J. M. Tadić**, M. Loewenstein, W. Gore. Airborne observations and modeling of springtime stratosphere-to-troposphere transport over California. *Atmos. Chem. Phys.*, 13, 12481–12494, 2013, doi:10.5194/acp-13-12481-2013.
14. Emma L. Yates, Angela Detweiler, Laura Iraci, Brad Bebout, Christopher McKay, Kathleen Schiro, Edwin Sheffner, Cheryl Kelley, **Jovan Tadić**, Max Loewenstein, Assessing the role of alkaline soils on the carbon cycle at a playa site, *Environmental earth sciences*, 01/2012; DOI:10.1007/s12665-012-2194-x.
15. **Jovan M. Tadić**, Comment on "308 nm Photolysis of Nitric Acid in the Gas Phase, on Aluminum Surfaces, and on Ice Films", *J. Phys. Chem. A.* 2012 Sep 27; doi 23016500.
16. **Jovan Tadić**, M. Loewenstein, C. Frankenberg, L. T. Iraci, E. L. Yates, W. Gore, and A. Kuze, A comparison of in-situ aircraft measurements of carbon dioxide to GOSAT data measured over Railroad Valley playa, Nevada, USA, *IEEE Transactions on Geoscience and Remote Sensing* 01/2014 52(12):7764-7774.
17. **Jovan Tadić**, Xiemei Qiu, Vineet Yadav and Anna Michalak, Mapping of satellite Earth observations using moving window block kriging, *Geosci. Model Dev.*, 8, 1–9, 2015, doi:10.5194/gmd-8-1-2015.
18. Yoichi Shiga, **Jovan Tadić**, Mae Qiu and Anna Michalak, Solar-induced fluorescence observations help inform CO₂ flux estimates in an atmospheric inversion over North America, in preparation.
19. **Jovan Tadić**, Velibor Ilić, and Sebastien Biraud, Examination of geostatistical and machine-learning techniques as interpolators in anisotropic atmospheric environments, *Atmospheric Environment*, Vol 111, June 2015, 10.1016/j.atmosenv.2015.03.063.
20. **Jovan Tadić** and Anna Michalak. On the Effect of Horizontal CO₂ Variability and Difference in Spatial Supports on Inter-comparisons between Remote Sensing and in situ Platforms, *Atmospheric Environment*, Volume 132, 309–316, 2016.
21. Matthew S. Johnson, Emma L. Yates, Laura T. Iraci, Max Loewenstein, **Jovan M. Tadić**, Kevin J. Wecht, Seongeun Jeong, Marc L. Fischer, Analyzing source apportioned methane in Northern California during DISCOVER-AQ-CA using airborne measurements and model simulations, *Atmospheric Environment*, Volume 99, December 2014, Pages 248–256.
22. Emma L. Yates, Laura T. Iraci, D. Austerberry, R. Bradley Pierce, Matthew C. Roby, **Jovan M. Tadić**, Max Loewenstein, Warren Gore, Characterizing the impacts of vertical transport and photochemical ozone production on an exceedance area, *Atmospheric Environment*, Vol 109, June 2015, doi:10.1016/j.atmosenv.2014.09.002.
23. Tadić Vojin, Milošević Snežana, Cingel Aleksandar, Petrić Marija, Trifunović Milana, Antonić Dragana, **Tadić Jovan**, Subotić Angelina, Production of hairy root cultures of lettuce (*Lactuca sativa* L.), *Cent. Eur. J. Biol.* DOI: 10.2478/s11535-014-0351-9, 2014.
24. Tadić Vojin, Ana Marija Balaž, Petrić Marija, Milošević Snežana, Nevena D. Zelenović, Martin Z. Raspor, **Tadić M. Jovan**, Radivoje M. Prodanović, Cloning of the gene for a carbohydrate oxidase from *Lactuca Sativa* in the yeast *Saccharomices cerevisiae* and *Pichia pastoris*, *Chemical Industry*, 2014, DOI:10.2298/HEMIND140823003T..
25. Vojin Tadić, Marija Petrić, Snežana Milosević, Aleksandar Cingel, Martin Raspor, Dragica Spasojević and **Jovan Tadić**, Effect of Phenol on Germination Capacity and Polyphenol Oxidase,

Peroxidase and Catalase Activities in Lettuce, Arch. Biol. Sci., Belgrade, 66 (4), 1503-1514, 2014, DOI:10.2298/ABS1404503T.

26. **Tadić M. Jovan.** The refutation of counterfactual and conditional approaches to causation, *Theoria*, March 2015, DOI: 10.2298/THEO1501039T.

27. Tomoaki Tanaka, Emma Yates, Laura Iraci, Matthew S. Johnson, Warren Gore, **Jovan M. Tadić**, Max Loewenstein, Akihiko Kuze, Christian Frankenberg, Andre Butz, Yukio Yoshida. Two-year comparison of airborne measurements of CO₂ and CH₄ with GOSAT at Railroad Valley, Nevada, IEEE Transactions on Geoscience and Remote Sensing, DOI: 10.1109/TGRS.2016.2539973, 2016.

28. Matthew S. Johnson, Xin Xi, Seongeun Jeong, Emma L. Yates, Laura T. Iraci, Tomoaki Tanaka, Max Loewenstein, **Jovan Tadić**, Marc L. Fischer. Investigating seasonal methane emissions in northern California using airborne measurements and inverse modelling, submitted to Atmospheric environment, Sep 2015.

29. **Tadić, Jovan**, Qiu, X., Miller, S., and Michalak, A. M.: Spatio-temporal approach to moving window block kriging of satellite data, Geosci. Model Dev. Discuss., doi:10.5194/gmd-2016-192, in review, 2016.

30. **Jovan M. Tadić**, Anna M. Michalak, Laura Iraci, Thaopaul Bui, Velibor Ilić, Matthew S. Johnson, Max Loewenstein, Seongeun Jeong, Marc L. Fischer et al. Elliptic cylinder airborne sampling and geostatistical mass balance approach for quantifying local greenhouse gas emissions. *In preparation*.

31. **Tadić M. Jovan.** On (non)universality of colour experience, *Theoria*, accepted, 2016.

32. **Tadić M. Jovan.** On mathematical and logical realism and contingency, *Theoria*, accepted, 2017.

Conferences/Symposiums/Seminars:

1. F. Sauer, J. Tadić, I. Magneron, S. Bauerle, G.K. Moortgat, Photolytic studies on glyoxal, *n*-butanal, *n*-pentanal, and trans-crotonaldehyde, Poster presented at the 24th General Assembly of the European Geophysical Society in The Hague, 19-23 April 1999. Abstract, in Journal Geophysical Research Abstracts, Volume 1, 1999.

2. G.K. Moortgat, K. Wirtz, M. Pons, N. Jensen, J. Horth, R. Winterhalter, L. Ruppert, I. Magneron, J. Tadić and A. Mellouki, Trends in atmospheric photodissociation rates of selected carbonyl compounds, Proceedings of the EC/ Eurotrac-2 Joint Workshop "Chemical Processes and mechanisms", and "Chemical Mechanism Development" 20-22-September 1999, Aachen, Ed. R. Vogt and G. Axelsdottir, 28-31 (1999). (invited talk, Moortgat)

3. I. Magneron, J. Tadić, F. Sauer and G.K. Moortgat, Photolytic studies on glyoxal, crotonaldehyde, acrolein and glycolaldehyde, Proceedings of the EC/ Eurotrac-2 Joint Workshop "Chemical Processes and mechanisms", and "Chemical Mechanism Development" 20-22-September 1999, Aachen, Ed. R. Vogt and G. Axelsdottir, 66-69 (1999) (Poster)

4. I. Magneron, A. Horowitz, J. Tadić, K. Wirtz, M. Pons and G.K. Moortgat, Photolytic studies on glyoxal and Glycolaldehyde, Proceedings of the EUROTRAC-2 Symposium 2000 in Garmisch Partenkirchen, P.M. Midgley, M. Reuther and M. Williams (Eds), Springer Verlag Berlin Heidelberg, in press 2001 (Poster)

5. R. Winterhalter, N.R. Jensen, I. Magneron, K. Wirtz, W. Mellouki, M. Yuying, J. Tadić, Abraham Horowitz, G.K. Moortgat and J. Horth, Studies of the photolysis of pyruvic acid. Products and mechanism, Proceedings of the EUROTRAC-2 Symposium 2000 in Garmisch Partenkirchen, P.M. Midgley, M. Reuther and M. Williams (Eds), Springer Verlag Berlin Heidelberg, in press 2001 (Poster)

6. E. Yates, M. Lowenstein, L. Iraci, K. Akihiko, J. Tadić, S. Vay, and S. Kawa, Atmospheric measurements of carbon dioxide and methane at Railroad Valley playa, Nevada, USA. Poster presented at the EGU Conference in Vienna, Austria, 2011, Halls X/Y / Attendance Wed, 06 Apr, 17:30–19:00.

7. Iraci, Fladeland, Loewenstein, J. Tadić, Gore, Trias, R. Olson, Yates, Schiro, Sheffner, Kolyer, Bui, Bruegge, Crisp, Kuze, E. Olsen, Wunch, Podolske, An Observing Architecture for Synthesis of Multi-platform Observations of Carbon Dioxide over Railroad Valley, NV, AGU Meeting 2011.
8. E. L. Yates, K. Schiro, E. J. Sheffner, B. Bebout, R. Berthold, J. DeMarines, A. Detweiler, M. Fladeland, L. T. Iraci, C. Kelley, R. Kolyer, C. McKay, M. Loewenstein, J. Tadić, Spatial and temporal variability in atmospheric CO₂ and CH₄ at Railroad Valley playa, a mid-latitude desert site, AGU Dec 2011.
9. J. Tadić, M. Loewenstein, L. T. Iraci, W. Gore, K. Schiro, R. Olson, E. J. Sheffner, E. L. Yates, Development of a new platform for airborne measurements of atmospheric CO₂ and CH₄ and comparison with GOSAT measurements at Railroad Valley playa, Nevada, American Geophysical Union, Fall Meeting 2011, abstract #A33C-0240.
10. Rebekah A. Olson, Laura T. Iraci, Warren J. Gore, Jovan M. Tadić, Emma L. Yates, Max Loewenstein, Emmett A. Quigley, Antonio A. Trias, Ryan L. Walker, In situ measurements of carbon dioxide (CO₂), methane (CH₄), and ozone (O₃) over the Sierra Mountains of central California and western Nevada, AGU Dec 2011.
11. K. A. Schiro, E. L. Yates, E. J. Sheffner, L. T. Iraci, B. Bebout, R. Berthold, C. Bruegge, J. DeMarines, A. Detweiler, M. Fladeland, C. Kelley, R. Kolyer, C. McKay, M. Loewenstein, J. Tadić, Comparing Ground and Airborne In-Situ Greenhouse Gas (GHG) Measurements in Railroad Valley, NV to Identify Local Point Sources and Quantify their Influences on Observed Background Concentrations, AGU Dec 2011.
12. J. Tadić; M. Loewenstein; C. Frankenberg; L.T. Iraci; W. Gore; E.L. Yates, Two year (2011-2012) observations of atmospheric CO₂ and CH₄ and comparison with GOSAT measurements at Railroad Valley playa, Nevada, A41A-0005, AGU Dec 2012.
13. E.L. Yates; M.C. Roby; L.T. Iraci; J. Tadić; M. Loewenstein; W. Gore; D. Austerberry, In-situ Observations of springtime stratosphere-troposphere exchange events over California, A53Q-0430, AGU Dec 2012.
14. E. L. Yates, L. T. Iraci, D. Austerberry, M. C. Roby, Jovan M. Tadić, T. Tanaka, M. Loewenstein, W. Gore, Observations of ozone transport from the free troposphere to an exceedance area, A040. AGU Dec 2013.
15. Emma L. Yates, Matthew S. Johnson, Marc L. Fischer, Jovan M. Tadić, Tomoaki Tanaka, Max Loewenstein, Warren Gore, Laura T. Iraci, Analyzing methane emissions from the San Joaquin Valley, California using combined airborne and tower measurements, A040. AGU Dec 2013.
16. Jovan M. Tadić, Yoichi Shiga, Mae Qiu and Anna M. Michalak, Mapping of solar-induced fluorescence at high spatio-temporal resolution using GOME-2 satellite observations, 5th International Workshop on Remote Sensing of Vegetation Fluorescence, Paris, France, 22-24 April, 2014.
17. Yoichi Paolo Shiga, Jovan Tadic, Vineet Yadav, Xuemei Qui, Joseph A Berry, Joanna Joiner and Anna M Michalak, Remote Sensing of CO₂ and CH₄ from Space: Exploiting New Measurements, #3112, AGU Dec 2014.
18. Matthew S. Johnson, Xin Xi, Emma L. Yates, Laura T. Iraci, Christopher Potter, Tomoaki Tanaka, Max Loewenstein, Jovan Tadic, Seongeun Jeong, Marc L. Fischer, Investigating seasonal emissions of carbon dioxide and methane in northern California using airborne measurements and inverse modeling, AGU Dec 2014.
19. Tomoaki Tanaka, Emma L. Yates, Laura T. Iraci, Matthew S. Johnson, Jimena Lopez, Max Loewenstein, Warren Gore, Jovan Tadic, Akihiko Kuze, Shuji Kawakami, Comparison of airborne measurements of greenhouse gases over Railroad Valley, Nevada to satellite and model results, A068, AGU Dec 2014.

20. Jessica B. Swetish, Deborah N. Huntzinger, Christopher Schwalm, Joshua B. Fisher, Junjie Liu, Anna M. Michalak, Kevin W. Bowman, Jovan Tadić, Mae Qiu, MsTMIPCore-Team; MsTMIP-Modeling Teams. Reducing Uncertainty in Terrestrial Biosphere Models with Satellite Observations of Atmospheric CO₂: Comparing MsTMIP with GOSAT, AGU Dec2014.
21. Y. Zheng, N. Unger, M. P. Barkley, R. Seco, **J. Tadić**, A. Guenther, and A. Michalak, Relationships between photosynthesis and formaldehyde as a probe of isoprene emission, AGU Dec2015.
22. Tomoaki Tanaka, Laura Iraci, Emma Yates, Warren Gore, Naoko Saitoh, **Jovan M. Tadić**, Kei Shiomi, Shuji Kawakami, Akihiko Kuze, and Colm Sweeney, Characterization and validation of CH₄ profiles derived from the GOSAT thermal infrared band, AGU Dec2015.

Invited talks:

“Development of a new platform for airborne measurements of atmospheric CO₂, CH₄ and O₃”, Copenhagen Center for Atmospheric Research, Jan 20th 2012, Copenhagen, Denmark (Dr. Matthew Johnson, msj@kiku.dk).

“Development of a new platform for airborne measurements of atmospheric CO₂, CH₄ and O₃”, Picarro inc, Aug 30th, 2012, Santa Clara, California, USA (Eric Crosson, eric@picarro.com).

“Architecture and remodelling of Picarro 2301-m, the sensor for greenhouse gases”, Institute of Physics, Center for Photonics, Belgrade, Serbia, Oct 7th 2012 (Prof. Dr. Darko Vasiljević, darko@ipb.ac.rs).

“CO₂ and CH₄ measurements at NASA Ames Research Center based on Alpha Jet platform: satellite validations and urban outflow studies”, Carnegie Institution for Science, Department of Global Ecology, Stanford, CA94305, Jan 14th 2013 (Prof. Dr. Anna Michalak, michalak@stanford.edu)

“Airborne urban outflow measurements: uncertainties and anisotropy problem”, Lawrence Berkeley National Laboratory, Berkeley, CA, April 1st 2013 (Dr. Sebastien Biraud, scbiraud@lbl.gov)

“Update on geostatistical L3 mapping tools for GOSAT and OCO-2”, JPL/Caltech, Pasadena, CA, Januar 30th, 2014 (Dr. Hai Nguyen, hai.nguyen@jpl.nasa.gov)

Research proposals submitted:

To NASA: Determining the Role of Subsea Arctic Permafrost in Global Methane and Carbon Dioxide Dynamics (Science PI), 10-UAS10-0027.

To NASA: In-situ Vertical Profiles of Carbon Dioxide in Support of OCO-2 Calibration (Collaborator), 11-OCO211-0017. [**FUNDED**]

To NASA: High altitude profiles and transects of carbon on the NASA/SOFIA mission (Collaborator), 11-CMS11-0038.

To NASA: Development of an Integrated Regional Carbon Monitoring System with Bottom-Up/Top-Down Models and In-Situ/Airborne Measurements in Northern California (Collaborator), 11-OCO211-0017.

To NASA: CO₂ Mobile Laser Beacon (Collaborator), 11-CMS11-0058.

To NOAA: Design and analysis of greenhouse gas 'urban outflow' studies for several U.S. West Coast cities (Science PI), NOAA-OAR-CPO-2013-2003445.

To NASA Ames SIF call, Dec 2012: Urbanization, Greenhouse Gases and Climate Change (Collaborator) [**FUNDED**]

To NSF: Aircraft-Based Measurements of Seasonal Variations of the Carbon Footprint of US cities - West coast, No 1321697 (Principal Investigator).

To NASA: Optimization and Deployment of New Sampling Schemes for Airborne Observations of Greenhouse Gases, NASA Research Announcement NNH13ZDA001N-CARBON, A.5 Carbon Cycle Science (Science PI).

To NASA: Ground and aircraft aerosol phase function measurements with an imaging polar nephelometer, NNH13ZDA001N-IIP: Instrument Incubator Program, A.40 Instrument incubator (Collaborator).