

**Michal Segal Rozenhaimer, PhD**

Assistant Professor

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**CURRICULUM VITAE AND LIST OF PUBLICATIONS****RESEARCH INTERESTS**

- Remote Sensing of the Atmosphere
- Application of statistical and machine learning methods in Atmospheric Science
- Aerosols and Clouds, and their effect on the Earth Radiative budget and Climate
- Atmospheric composition – Air quality and Atmospheric Chemistry

**EDUCATION**

**Ph.D.** Civil and Environmental Engineering, Technion – IIT (Israel Institute of Technology), Haifa, Israel, April, 2011

Thesis: “*Environmental Fate of Semi-volatile Pesticides in the Atmosphere: Implementation of FTIR techniques in the investigation of heterogeneous reactions*”

Advisors: Dr. Yael Dubowski, Dr. Raphael Linker

**M.Sc.** Agricultural Engineering (Water, Soil, and Environmental Sciences), Technion – IIT, Haifa, Israel, 2000-2002, (*Magna Cum Laude*)

Thesis: “*Sources and process of nitrogen in the Lower Jordan River using geochemical and isotopic tracers*”

Advisors: Dr. Uri Shavit, Prof. Avi Shavit

**B.Sc.** Chemical Engineering, Technion – IIT, Haifa, Israel, 1999, (*Magna Cum Laude*)

**PROFESSIONAL EXPERIENCE****Senior Lecturer (Assistant Professor) –**

Porter School for the Environment and Earth Sciences, TAU, Israel 2019-present

**Associate Research Scientist –**

Bay Area Environmental Research Institute, NASA Ames Research Center, CA 2013-present

**NASA Post-Doctoral Fellow –**

NASA Ames Research Center, CA, USA 2011-2013

**Research Associate –**

Technion R&D Institute, Civil and Environmental Engineering Department 2010-2011

**Research Assistant –**

Technion, Israel Institute of Technology 2005-2010

**PROFESSIONAL AFFILIATIONS AND SERVICES**

- Member of the American Geophysical Union (AGU)
- Journal reviewer for Quantitative Spectroscopy and Radiative Transfer (*JQSRT*), *Chemosphere*, Journal of Physical Chemistry (*JPC*), Atmospheric Measurement Techniques (*AMT*), Physical Chemistry chemical Physics (PCCP), International Journal of Environmental Science and Technology, Atmospheric Chemical Physics (*ACP*)
- AGU outstanding student paper award (OSPA) judge (2012-2016), Lead convener and chair for AGU 2016 'Observations for Improving Polar Weather and Climate Predictions' oral and poster sessions.
- Reviewer: NSF and NASA Post Doctoral Fellowship program
- NASA Ames AERONET (polarized Cimel) network deputy-PI.

**FIELD EXPERIENCE****Planning and participation in the following NASA/DOE lead airborne missions:**

- NASA ORACLES (ObseRvations of Aerosols above CLouds and their intEractionS), Namibia, 2016-2018. Member of the science team, instrument scientist and developer of new remote sensing products for the project.
- NASA KORUS-AQ (Korean-US Air Quality 2016), instrument PI and proposal co-PI.
- NASA ARISE (Arctic Radiation, IceBridge, Sea&Ice Experiment), Fairbanks, AK, 09-10/14, instrument scientist on C-130 aircraft, planned and executed flights to support the campaign scientific goals. Member of the science team and co-planner of a follow-on mission.
- NASA/DOE TCAP (Two Column Aerosol Project), Cape-Cod, MA, 02/13, scientist.

**AWARDS AND HONORS**

- Bachelor of Science in chemical Engineering graduation honor, Technion, Israel, 1999
- Master of Science in Agriculture Engineering graduation honor, Technion, Israel, 2002
- Gutwirth Excellence Award, Technion, Israel 2002, 2008
- Jacobs Excellence Award, Technion, Israel 2007
- The “whole organism” Excellence award, Israeli Ministry of Agriculture 2007-2008

**RESEARCH GRANTS AND FELLOWSHIPS**

- “Assessing the link between aerosol mixing state, structure and composition and their optical properties: Ascension Island as a testbed for the South-East Atlantic aerosol regimes”, US DOE-ASR, 2019-2022, PI, \$267K
- “Improving our understanding on the Link between Aerosols, Marine Stratocumulus Clouds and Radiative Effects: Combining Novel Cloud Classification Approach with Satellites, Airborne Observations and Climate Models”, NASA ACMAP, 2019-2022, PI, \$507K
- “Improving Arctic Reanalyses and Seasonal Forecasts: Boundary Layer Clouds and Surface Radiative Flux Assessment with Airborne Observations and Model Simulations”, NASA ROSES (Research Opportunities in Space and Earth Sciences) New Investigator Program, 2016-2019, Principle Investigator (PI), \$150K.

- “Airborne measurements of hyper-spectral optical depth and retrievals of trace gas column contents and aerosol properties from 4STAR during KORUS-AQ”, NASA ROSES, 2015-2018, co-PI, \$700K
- EU COST action school- environmental technologies and Air-quality monitoring – Invited trainee, Barcelona, Spain 13-15 June, 2013
- NASA Post-doctoral Fellowship program (NPP) 2011-2013
- Environmental Health Foundation (EHF), Organophosphates in Hula Basin: atmospheric levels, transport, degradation products and neurotoxic hazards in children following low-level long-term exposure, co-I, \$100K 2010-2013
- Technion Institute of R&D, Detection of toxic aerosols by open-path FTIR, 2010-2011
- Advancing Women in Science Fellowship, Weizmann Institute, Israel 2010-2012
- Minerva Research Fellowship (Israel-Germany Exchange) 2009
- Levi Eshkol Doctoral Fellowship – Israeli Ministry of Science 2008-2010
- Rieger JNF Fellowship for research in Environmental Science (USA) 2001-2, 2007

### **TEACHING**

**Lecturer**, Introduction to Chemistry, Tel-Aviv University (TAU), Spring 2020, (undergraduate)

**Lecturer**, Remote Sensing for Meteorology, San Jose State University (SJSU), Winter-Spring 2016-2017, (Senior and Graduate)

**Lecturer**, Statistics (Undergraduate), Civil and Environmental Engineering, Technion, 2009

**Teaching Assistant**, Statistics (Undergraduate), CEE, Technion, Israel, 2005-2009

**Teaching Assistant**, Environmental Chemistry (Graduate), CEE, Technion, Israel, 2005-2010

**Teaching Assistant**, Air quality Laboratory (Graduate), Civil and Environmental Engineering, Technion, 2005-2010

**Teaching Assistant**, Introduction to transport and pollution in soil (Undergraduate), Agriculture Engineering, Technion, Israel, 2000-2002

**Lecturer**, AutoCAD for Engineers (Undergraduate), Agriculture Engineering, Technion, Israel 2000-2002

### **PROFESSIONAL COURSES AND WORKSHOPS**

- WRF (Weather Research Forecast) model course, Boulder, CO, 27-31/01, 2014
- COST school: Environmental technologies and Air quality monitoring, Barcelona, Spain, 13-15/06, 2013
- Official CALPUFF TRC training course, Boulder, CO, 14-17/03, 2011
- MODIS Works by NASA (Dr. Richard Kleidman and Dr. Robert Levi, NASA Goddard Space Flight Center), Technion, Israel, 2010
- Environmental Health Foundation (EHF) Exposure Assessment course, Ramat-Gan, Israel, 11-13/01, 2010
- Statistical methods in Hydrology and Meteorology, Hebrew University, Jerusalem, Israel, 12-16/10, 2009

## TECHNICAL SKILLS

- Modeling, and computer skills: python, Matlab, R, Fortran, C, Linux, Shell, AutoCAD, Lagrangian particle trajectory models (HYSPLIT, FLEXPART-WRF) and radiative transfer model libraries (SBDART, LibRadTran)
- Laboratory analysis and measurement tools: UV-VIS-SWIR transmittance, reflectance and absorption measurements; ATR/LP/Open-Path-FTIR, GC-MS, ICP-MS, AFM, SEM

## SCIENTIFIC PUBLICATIONS

### Conference proceedings and book chapters

1. Shavit, U., R. Holtzman, **M. Segal**, A. Vengosh, E. Farber, I. Gavrieli, T. Bullen, and ECO- Research Team. (2002), Water Sources and Quality Along the Lower Jordan River, Regional Study. *In: Water Resources Quality, Preserving the Quality of our Water Resources*, Edited by H. Rubin, H.P. Nachtnebel, J. Furst, and U. Shamir, Springer-Verlag, Berlin, pp. 127-148
2. Shavit, U., Holtzman, R., **Segal, M.**, Gavrieli, I., Farber, E., and Vengosh, A. (2004), The lower Jordan river, 30th International Seminar on Nuclear War and Planetary, INTERNATIONAL SEMINAR ON NUCLEAR WAR AND PLANETARY EMERGENCIES - 30TH SESSION, Book Series: SCIENCE AND CULTURE SERIES: NUCLEAR STRATEGY AND PEACE TECHNOLOGY, Editor: Ragaini, R, Erice, ITALY, AUG 18-26, 2003, Pages: 275-288 DOI:10.1142/9789812702753\_0032.
3. Farber, E., Vengosh, A., Gavrieli, I., Marie, A., Bullen, T.D., Mayer, B., Holtzman, R., **Segal, M.**, and Shavit, U. (2005), The relationships between groundwater discharge and the Lower Jordan River, 15th Annual V M Goldschmidt Conference, Moscow. Source: GEOCHIMICA ET COSMOCHIMICA ACTA Volume: 69 Issue: 10 Supplement: S Pages: A813-A813 Published: MAY 2005.
4. **Segal-Rosenheimer M.**, Linker R., Dubowski Y., Jahn C., Gerl G., Schäfer K. (2010), Feasibility study of detection of hazardous aerosol pollutants using passive open-path FTIR, *Proceedings SPIE Vol. 7673, Air Monitoring and Remote Sensing, 76730G* ; doi:10.1117/12.850027, Presented at: Advanced Environmental, Chemical, and Biological Sensing, SPIE Defense, Security, and Sensing conference, Orlando, FL, April, 2010.
5. Knobelspiesse Kirk, Brian Cairns, Hiren Jethva, Meloe Kacenenelbogen, **Michal Segal-Rosenheimer**, Omar Torres, Remote sensing of above cloud aerosols, *In: Light Scattering Reviews*, Springer series, Editor: Alexander Kokhanovsky, Vol. 9

### Refereed articles, refereed letters in scientific journals

1. Ferber, E., Vengosh, A., Gavrieli, I., Marie, A., Bullen, T., Mayer, B., Holtzman, R., **Segal, M.**, Shavit, U. (2004), Hydrochemistry and Isotope Geochemistry of the Lower Jordan River: Constraints for the Origin and Mechanisms of Salinization, *Geochimica*

- Cosmochimica Acta*, 68: 1989-2006, *IF*: 4.25, *Rank*: 3.016, *citations*: 84, *h-index*=212, *Q1*=2.49
2. **Segal-Rozenhaimer, M.**, Shavit, U., Holtzman, R., Vengosh, A., Farber, E., Gavrieli, I., Bullen, T., Mayer, B., and Shaviv, A., (2004), Sources and Transformations of Nitrogen Pollutants along the Lower Jordan River. *J. Environ. Qual.* 33(4):1440-1451, *IF*: 2.65, *Rank*: 1.4, *citations*: 32, *h-index*=150, *Q1*=1.02
  3. Farber, E., Vengosh, A., Gavrieli, I., Marie, A., Bullen, T.D., Mayer, B., Holtzman, R., **Segal, M.**, and Shavit, U., (2005), Management scenarios for the Jordan River salinity crisis, *Applied Geochemistry*, 20 (11): 2138-2153, *IF*: 3.09, *Rank*: 1.1, *citations*: 22, *h-index*=114, *Q1*=0.99
  4. Holtzman, R., Shavit, U., **Segal-Rozenhaimer, M.**, Gavrieli, I., Marei, A., Farber, E., Vengosh, A., (2005), Quantifying ground water inputs along the lower Jordan river, *Journal of Environmental Quality*, 34(3), 897-906, *IF*:2.65, *Rank*: 1.4, *citations*: 25, *h-index*=150, *Q1*=1.02
  5. **Segal-Rosenheimer, M.**, and Y. Dubowski, (2007), Heterogeneous Ozonolysis of Cypermethrin Using Real-Time Monitoring FTIR Techniques, *J. Phys. Chem. C*, 111, 11682-11691, *IF*: 4.48, *Rank*: 2.0, *citations*: 61, *h-index*=238, *Q1*=1.65
  6. **Segal-Rosenheimer, M.**, and Y. Dubowski, (2008), Photolysis of thin films of cypermethrin using in-situ FTIR monitoring; products, rates and quantum yields, *J. Photochem. & Photobiol. A*, 200, 262-269, *IF*:2.49, *Rank*: 0.9, *citations*: 22, *h-index*=145, *Q1*=0.66
  7. **Segal-Rosenheimer, M.**, Y. Dubowski, and R. Linker, (2009), Extraction of optical constants from Mid-IR spectra of small aerosol particles, *J. Quant. Spec. & Radiative Trans.*, 110, 415-426, *IF*: 2.7, *Rank*: 1.2, *citations*: 16, *h-index*=94, *Q1*=0.86
  8. **Segal-Rosenheimer, M.**, and R. Linker, (2009), Impact of the non-measured infrared spectral range of the imaginary refractive index on the derivation of the real refractive index using the Kramers-Kronig transform, *J. Quant. Spec. & Radiative Trans.*, 110, 1147-1161, *IF*: 2.7, *Rank*: 1.2, *citations*: 9, *h-index*=94, *Q1*=0.86
  9. **Segal-Rosenheimer, M.**, and Y. Dubowski, (2010), Photolysis of methyl-parathion thin films: products, kinetics and quantum yields under different atmospheric conditions, *J. Photochem. & Photobiol. A*, 209(2-3), *IF*: 2.49, 193-202, *Rank*: 0.9, *citations*: 7, *h-index*=145, *Q1*=0.66
  10. **Segal-Rosenheimer, M.**, R. Linker and Y. Dubowski, (2011), Heterogeneous oxidation of the insecticide Cypermethrin as thin film and airborne particles by hydroxyl radicals and ozone, *Phys. Chem. Chem. Phys.*, 13(2), 506-517, *IF*: 3.9, *Rank*: 1.8, *citations*: 15, *h-index*=199, *Q1*=1.31
  11. **Segal-Rosenheimer, M.**, Russell P.B., Livingston J.M., Ramachandran S., Redemann J. and Baum B.A., (2013) Retrieval of Cirrus properties by Sunphotometry: A new perspective on an old issue, *J. Geophys. Res.-Atmospheres.*, 118, 1-18, doi:10.1002/2012JD018880, 2013, *IF*: 3.4, *Rank*: 2.3, *citations*: 15, *h-index*=295, *Q1*=1.89
  12. Stephen E. Dunagan, Roy Johnson, Jhony Zavaleta, Philip B. Russell, Beat Schmid, Connor Flynn, Jens Redemann, Yohei Shinozuka, John Livingston, **Michal Segal-Rosenheimer**, (2013), 4STAR Spectrometer for Sky-Scanning Sun-Tracking Atmospheric Research: Instrument Technology, *Remote Sens.* 2013, 5, 3872-3895; doi:10.3390/rs5083872, *IF*: 3.4, *Rank*: 1.2, *citations*: 24, *h-index*=151, *Q1*=0.83
  13. Shinozuka, Y.; Johnson, R.; Flynn, C.; Russell, P.B.; Schmid, B.; Redemann, J.; Dunagan, S.; Kluzek, C.; Hubbe, J.; **Segal-Rosenheimer, M.**; Livingston, J.; Eck, T.; Chand, D.; Berg

- L., Rogers, Ferrare, Hostetler C.,(2013), Hyperspectral aerosol optical depths from TCAP flights, *JGR Atmospheres*, doi: 10.1002/2013JD020596, *IF: 3.4, Rank: 2.3, citations: 13, h-index=295, Q1=1.89*
14. **Segal-Rosenheimer, M.**, et al. (2014), Tracking elevated pollution layers with a newly developed hyperspectral Sun/Sky spectrometer (4STAR): Results from the TCAP 2012 and 2013 campaigns, *J. Geophys. Res. Atmos.*, 119, doi:10.1002/2013JD020884, *IF: 3.4, Rank: 2.4, citations: 11, h-index=295, Q1=1.89*
  15. Ohad Zivan, **Michal Segal Rosenheimer**, Yael Dubowski, (2016), Airborne Organophosphate pesticide drift in Mediterranean climate: the importance of secondary drift, *Atmospheric Environment*, 127, 155-162, *IF: 3.7, Rank: 2, citations: 20, h-index=211, Q1=1.42*
  16. Smith William L. Jr., Christy Hansen, Anthony Bucholtz, Bruce E. Anderson, Matthew Beckley, Joseph G. Corbett, Richard I. Cullather, Keith M. Hines, Michelle Hofton, Seiji Kato, Dan Lubin, Richard H. Moore, **Michal Segal-Rosenheimer**, Jens Redemann, Sebastian Schmidt, Ryan Scott, Shi Song, John D. Barrick, J. Bryan Blair, David H. Bromwich, Colleen Brooks, Gao Chen, Helen Cornejo, Chelsea A. Corr, Seung-Hee Ham, A. Scott Kittelman, Scott Knappmiller, Samuel LeBlanc, Norman G. Loeb, Colin Miller, Louis Nguyen, Rabindra Palikonda, David Rabine, Elizabeth A. Reid, Jacqueline A., Richter-Menge, Peter Pilewski, Yohei Shinozuka, Douglas Spangenberg, Paul Stackhouse, Patrick Taylor, K. Lee Thornhill, and Edward Winstead, (2017), Arctic Radiation-IceBridge Sea and Ice Experiment (ARISE): The Arctic Radiant Energy 2 System During the Critical Seasonal Ice Transition, *BAMS*, <http://dx.doi.org/10.1175/BAMS-D-14-00277.1>, *IF: 7.8, Rank: 7.2, citations: NA, h-index=171, Q1=4.51*
  17. Larry K. Berg, Jerome D. Fast, James C. Barnard, Sharon P. Burton, Brian Cairns, Duli Chand, Jennifer M. Comstock, Stephen Dunagan, Richard A. Ferrare, Connor J. Flynn, Johnathan W. Hair, Chris A. Hostetler, John Hubbe, Anne Jefferson, Roy Johnson, Evgueni I. Kassianov, Celine D. Kluzek, Pavlos Kollias, Katia Lamer, Kathleen Lantz, Fan Mei1, Mark A. Miller, Joseph Michalsky, Ivan Ortega, Mikhail Pekour, Ray R. Rogers, Philip B. Russell, Jens Redemann, Arthur J. Sedlacek III, **Michal Segal-Rosenheimer**, Beat Schmid, John E. Shilling, Yohei Shinozuka, Stephen R. Springston, Jason M. Tomlinson, Megan Tyrrell, Jacqueline M. Wilson, Rainer Volkamer, Alla Zelenyuk, and Carl M. Berkowitz, (2016), The Two-Column Aerosol Project: Phase I Overview and Impact of Elevated Aerosol Layers on Aerosol Optical Depth, *J. Geophys. Res. Atmos.*, 121, 336–361, doi:10.1002/2015JD023848, *IF: 3.4, Rank: 2.3, citations: 20, h-index=295, Q1=1.89*
  18. Jethva, H., Torres, O., Remer, L., Redemann, J., Livingston, J., Dunagan, S., Shinozuka, Y., Kacenelenbogen, **M., Segal-Rosenheimer**, M.S. and Spurr, R., (2016). Validating MODIS above-cloud aerosol optical depth retrieved from " color ratio" algorithm using direct measurements made by NASA's airborne AATS and 4STAR sensors. *Atmospheric Measurement Techniques*, 9(10), p.5053, *IF: 2.98, citations: 7, h-index=70, Q1=1.77*
  19. Smirnov, A., T.B. Zhuravleva, **M. Segal-Rosenheimer**, B.N. Holben, (2018), Limitations of AERONET SDA product in presence of cirrus clouds, *Journal of Quantitative Spectroscopy & Radiative Transfer* 206, 338–341 <https://doi.org/10.1016/j.jqsrt.2017.12.007>, *IF: 2.7, h-index=94, Q1=0.86*
  20. **Segal Rozenhaimer, M.**, Barton, N., Redemann, J., Schmidt, S., LeBlanc, S., Anderson, B., et al. (2018). Bias and sensitivity of boundary layer clouds and surface radiative fluxes in MERRA-2 and airborne observations over the Beaufort Sea during the ARISE campaign.



- Journal of Geophysical Research: Atmospheres, 123. <https://doi.org/10.1029/2018JD028349>, *IF: 3.4, citations: 1, h-index=295, Q1=1.89*
21. Jay Herman, Elena Spinei, Alan Fried, Jhoon Kim, Jae Kim, Woogyung Kim, Alexander Cede, Nader Abuhassan, and **Michal Segal-Rozenhaimer**, (2018), NO<sub>2</sub> and HCHO measurements in Korea from 2012 to 2016 from Pandora Spectrometer Instruments compared with OMI retrievals and with aircraft measurements during the KORUS-AQ campaign, *Atm. Meas. Tech., Atmos. Meas. Tech.*, 11, 4583–4603, 2018 <https://doi.org/10.5194/amt-11-4583-2018>, <https://www.atmos-meas-tech.net/11/4583/2018/amt-11-4583-2018.pdf>, *IF: 2.98, h-index=70, Q1=1.77*
  22. **Segal Rosenheimer, M.**, Daniel Miller, Kirk Knobelspiese, Jens Redemann, Brian Cairns, Mikhail Alexandrov, (2018), Development of neural network retrievals of liquid cloud properties from multi-angle polarimetric observations, *Journal of Quantitative Spectroscopy & Radiative Transfer* 220 (2018) 39–51, *IF: 2.7, h-index=94, Q1=0.86*
  23. **Segal Rozenhaimer Michal**, Alan Li, Kamalika Das and Ved Chirayath, (2020), Cloud Detection Algorithm for Multi-Modal Satellite Imagery using Convolutional Neural-Networks (CNN), *Remote Sensing of Environment*, *Remote Sensing of Environment* 237 (2020) 111446, *IF: 8.218, h-index=238, Q1=3.21*,
  24. Samuel E. LeBlanc, Jens Redemann, Connor Flynn, Kristina Pistone, Meloë Kacenenbogen, **Michal Segal-Rosenheimer**, Yohei Shinozuka, Stephen Dunagan, Robert P. Dahlgren, Kerry Meyer, James Podolske, Steven G. Howell, Steffen Freitag, Jennifer Small-Griswold, Brent Holben, Michael Diamond, Paola Formenti, Stuart Piketh, Gillian Maggs-Kölling, Monja Gerber, and Andreas Namwoonde, (2020), Above Cloud Aerosol Optical Depth from airborne observations in the South-East Atlantic, *ACPD, Atmos. Chem. Phys.*, 20, 1565–1590, 2020 <https://doi.org/10.5194/acp-20-1565-2020>, *IF: 5.509, h-index=174, Q1=2.94*
  25. Pistone, K., Redemann, J., Doherty, S., Zuidema, P., Burton, S., Cairns, B., Cochrane, S., Ferrare, R., Flynn, C., Freitag, S., Howell, S. G., Kacenenbogen, M., LeBlanc, S., Liu, X., Schmidt, K. S., Sedlacek III, A. J., **Segal-Rozenhaimer, M.**, Shinozuka, Y., Stamnes, S., van Diedenhoven, B., Van Harten, G., and Xu, F.: Intercomparison of biomass burning aerosol optical properties from in situ and remote-sensing instruments in ORACLES-2016, *Atmos. Chem. Phys.*, 19, 9181-9208, <https://doi.org/10.5194/acp-19-9181-2019>, 2019, *IF: 5.509, h-index=174, Q1=2.94*
  26. Sayer, A. M., Hsu, N. C., Lee, J., Kim, W. V., Burton, S., Fenn, M. A., Ferrare, R. A., Kacenenbogen, M., LeBlanc, S., Pistone, K., Redemann, J., **Segal-Rozenhaimer, M.**, Shinozuka, Y., and Tsay, S.-C.: Two decades observing smoke above clouds in the south-eastern Atlantic Ocean: Deep Blue algorithm updates and validation with ORACLES field campaign data, *Atmos. Meas. Tech.*, 12, 3595-3627, <https://doi.org/10.5194/amt-12-3595-2019>, 2019, *IF: 3.248, h-index=70, Q1=1.77*
  27. Sabrina Cochrane, K. Sebastian Schmidt, Hong Chen, Peter Pilewskie, A. Scott Kittelman, Warren Gore, Jens Redemann, Samuel LeBlanc, Kristina Pistone, Meloë Kacenenbogen, **Michal Segal Rozenhaimer**, Yohei Shinozuka, Connor Flynn, Steven Platnick, Kerry Meyer, Rich Ferrare, Sharon Burton, Chris Hostetler, Steven Howell, Amie Dobracki, and Sarah Doherty, (2019), Above-Cloud Aerosol Radiative Effects based on ORACLES 2016 and ORACLES 2017 Aircraft Experiments, *Atmos. Meas. Tech.*, <https://doi.org/10.5194/amt-2019-125>, 2019, *IF: 3.248, h-index=70, Q1=1.77*

28. Shinozuka, Y., Saide, P. E., Ferrada, G. A., Burton, S. P., Ferrare, R., Doherty, S. J., Gordon, H., Longo, K., Mallet, M., Feng, Y., Wang, Q., Cheng, Y., Dobracki, A., Freitag, S., Howell, S. G., LeBlanc, S., Flynn, C., **Segal-Rozenhaimer, M.**, Pistone, K., Podolske, J. R., Stith, E. J., Bennett, J. R., Carmichael, G. R., da Silva, A., Govindaraju, R., Leung, R., Zhang, Y., Pfister, L., Ryoo, J.-M., Redemann, J., Wood, R., and Zuidema, P.: Modeling the smoky troposphere of the southeast Atlantic: a comparison to ORACLES airborne observations from September of 2016, *Atmos. Chem. Phys. Discuss.*, <https://doi.org/10.5194/acp-2019-678>, *in review*, 2019, IF: 5.509, h-index=174, Q1=2.94
29. Daniel J. Miller, **Michal Segal-Rozenhaimer**, Kirk Knobelspiesse, Jens Redemann, Brian Cairns, Mikhail Alexandrov, Bastiaan van Diedenoven, and Andrzej Wasilewski, (2020), Low-level liquid cloud properties during ORACLES retrieved using airborne polarimetric measurements and a neural network algorithm, *Atmos. Meas. Tech.*, 13, 3447–3470, 2020, <https://doi.org/10.5194/amt-13-3447-2020>, IF: 3.248, h-index=70, Q1=1.77
30. Chen, H., Schmidt, S., King, M. D., Wind, G., Bucholtz, A., Reid, E. A., **Segal-Rozenhaimer, M.**, Smith, W. L., Taylor, P. C., Kato, S., and Pilewskie, P.: Shortwave Radiative Effect of Arctic Low-Level Clouds: Evaluation of Imagery-Derived Irradiance with Aircraft Observations, *Atmos. Meas. Tech. Discuss.*, <https://doi.org/10.5194/amt-2019-344>, *in review*, 2019, IF: 3.248, h-index=70, Q1=1.77
31. Shinozuka, Y., M. S. Kacenelenbogen, S. Burton, S. Howell, P. Zuidema, R. Ferrare, S. LeBlanc, K. Pistone, S. Broccardo, J. Redemann, S. Schmidt, S. Cochrane, M. A. Fenn, S. Freitag, A. Dobracki, **M. Segal-Rozenhaimer**, and C. Flynn (2020), Daytime aerosol optical depth above low-level clouds is similar to that in adjacent clear skies at the same heights: airborne observation above the southeast Atlantic, *Atmos. Chem. Phys.*, doi:10.5194/acp-2019-1007 *in review*, IF: 5.509, h-index=174, Q1=2.94
32. Redemann et al., (2020), An overview of the ORACLES (ObseRvations of Aerosols above CLouds and their intEractionS) project: aerosol-cloud-radiation interactions in the Southeast Atlantic basin, *ACPD*, <https://doi.org/10.5194/acp-2020-449>
33. Sabrina P. Cochrane, K. Sebastian Schmidt, Hong Chen, Peter Pilewskie, Scott Kittelman, Jens Redemann, Samuel LeBlanc, Kristina Pistone, Meloë Kacenelenbogen, Michal Segal Rozenhaimer, Yohei Shinozuka, Connor Flynn, Amie Dobracki, Paquita Zuidema, Steven Howell, Steffen Freitag, Sarah Doherty (2020), Empirically-Derived Parameterizations of the Direct Aerosol Radiative Effect based on ORACLES Aircraft Observations, *AMTD*, *in review*, <https://doi.org/10.5194/amt-2020-137>
34. Li, Alan, Ved Chirayath, **Michal Segal-Rozenhaimer**, Juan L. Torres-Perez, (2020), NASA NeMO-Net's Convolutional Neural Network: Mapping Marine Habitats through Spectrally Heterogeneous Remote Sensing Imagery, *IEEE-Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, JSTARS-2020-00665, *Accepted*.

### Selected presentation of papers at conferences/meetings

1. Pistone, Kristina, Redemann Jens, **Segal-Rosenheimer, Michal**, In-situ and remote-sensing observations of springtime clouds and aerosol loading over northern Alaska, A51G-0143, 2016 AGU Fall Meeting, San Francisco, CA
2. **Michal Segal-Rosenheimer**, Kirk D Knobelspiesse, Jens Redemann, Brian Cairns, Mikhail D Alexandrov, Neural Network (NN) retrievals of Stratocumulus cloud



- properties using multi-angle polarimetric observations during ORACLES, A33L-06, 2016 AGU Fall Meeting, San Francisco, CA
3. Courtney Ann Keene , **Michal Segal-Rosenhaimer**, Characterization of Relative Humidity Profiles in the Arctic from Field Observations to Assist in Model Predictions. A51G-0144, 2016 AGU Fall Meeting, San Francisco, CA
  4. **Michal Segal Rozenhaimer**, Kirk Knobelspiesse, Jens Redemann , Neural Networks algorithm development for polarimetric measurements of above cloud aerosols (ACA), 2015 AGU Fall Meeting, San-Francisco, CA
  5. **Michal Segal-Rosenheimer**, Neil Barton, Jens Redemann, Sebastian Schmidt, Samuel LeBlanc, Bruce Anderson, Chelsea Corr, Richard Moore, Lee K. Thornhill, and Richard Cullather, RELATIVE ROLES OF ATMOSPHERIC STATE AND BOUNDARY LAYER CLOUDS ON ARCTIC CLOUD RADIATIVE FORCING FORECASTS: THE ARISE 2014 CASE STUDY, International Radiation Symposium, Auckland, NZ, Apr-2016
  6. **Segal-Rosenheimer, M.**, Shinozuka, Y., Fast, J., Berg, L., Saide, P., Effects of urban and biomass burning sources on downwind aerosol and ozone distributions: regional scale simulations combined with airborne remote sensing measurements during TCAP and SEAC<sup>4</sup>RS and their link to space-borne observations, 2014 AGU Fall Meeting, San Francisco, CA
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