

## Michelle J. Kim

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### EDUCATION

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<b>Ph.D.</b> Earth Sciences, Scripps Institution of Oceanography, UC San Diego	2015
<b>M.S.</b> Civil & Environmental Engineering, Stanford University	2010
<b>B.A.</b> Chemistry, Wellesley College	2005

### PROFESSIONAL APPOINTMENTS

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<b>NSF-Atmospheric and Geospace Sciences Postdoctoral Fellow</b>	2015-Present
Host: Paul Wennberg, California Institute of Technology	
<b>Graduate Research Assistant</b>	2010-2015
Advisor: Timothy Bertram, UC-San Diego (now UW-Madison)	
<b>Contract Researcher</b>	2009-2010
Advisor: Tobias Maile and Martin Fischer, CIFE, Stanford University	
<b>Howard Hughes Medical Institute Undergraduate Researcher</b>	2004-2005
Advisor: James H. Loehlin, Professor Emeritus of Chemistry	

### AWARDS AND HONORS

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NSF Atmospheric and Geological Science Postdoctoral Fellow	2015-2017
NOAA Climate and Global Change Postdoctoral Fellowship (alternate)	2015
ACCESS XIII Participant	2015
Match Fellow, UC-San Diego	2012
UC Regents' Fellowship, UC-San Diego	2010-11
NSF Graduate Research Fellowship (Honorable Mention)	2010

### FIELD CAMPAIGN PARTICIPATION

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Atmospheric Tomography Experiment <sup>1</sup> (ATOM) I-IV <i>Pacific &amp; Atlantic Basin</i>	2016-2018
Korean-US Air Quality Study <sup>1</sup> (KORUS-AQ), <i>Osan AFB, Republic of Korea</i>	2016
Western Atlantic Climate Study <sup>2</sup> (WACS) 2, <i>Western Atlantic Ocean</i>	2014
High Wind Gas Exchange Study <sup>2</sup> (HiWinGs), <i>North Atlantic Ocean</i>	2013
Lee Cruise <sup>2</sup> – Arctic Survey, <i>Arctic Ocean</i>	2013
Urban Coastal Flux Study <sup>3</sup> , <i>Scripps Institution of Oceanography Pier</i>	2011-12
Center for Aerosol Impacts on Climate and Environment (CAICE) <sup>3</sup> , <i>Scripps Institution of Oceanography Wave Channel</i>	2011

Sampling Platform: <sup>1</sup>Aircraft, <sup>2</sup>Research Vessel, and <sup>3</sup>Ground/Lab Intensive

### PUBLICATIONS

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7) **Kim, M. J.**, et al., (2017) Air-Sea Exchange of Biogenic Volatile Organic Compounds and the Impact on Aerosol Particle Size Distributions. *Geophys. Res. Lett.*, **44**(8), 3887–3896.

6) St. Claire, J. M., Rivera-Rios, J. C., Crounse, J. D., Praske, E., **Kim, M. J.**, et al., (2016) Investigation of a potential HCHO measurement artifact from ISOPOOH. *Atmos. Meas. Tech.*, **9**(9), 4561-4568.

5) **Kim, M. J.**, et al., (2016) Revisiting benzene cluster cations for the chemical ionization of dimethyl sulfide and select volatile organic compounds. *Atmos. Meas. Tech.*, **9**(4), 1473-1484.

4) **Kim, M. J.**, et al., (2015) Bacteria-driven production of alkyl nitrates in seawater. *Geophys. Res. Lett.*, **42**(2), 597-604.

3) **Kim, M.J.**, et al., (2014) A controlling role for the air-sea interface in the chemical processing of reactive nitrogen in the coastal marine boundary layer. *Proc. Natl. Acad. Sci.* **111**(11) 3943-8.

2) Guasco, T., Cuadra-Rodriguez, L., Pedler, B., Ault, A., Collins, D., Zhao, D., **Kim, M.**, et al., (2013) Transition metal associations with primary biological particles in sea spray aerosol, *Environ. Sci. Technol.*, **48**(2), 1324-1333.

1) Prather, K. A., Bertram, T.H., Grassian, V.H., Deane, G.B., Stokes, M.D., DeMott, P.J., Aluwihare, L.I., Palenik, B.P., Azam, F., Seinfeld, J.H., Moffet, R.C., Molina, M.J., Cappa, C.D., Geiger, F.M., Roberts, G.C., Russell, L.M., Ault, A.P., Baltrusaitis, J., Collins, D.B., Corrigan, C.E., Cuadra-Rodriguez, L.A., Ebben, C.J., Forestieri, S.D., Guasco, T.L., Hersey, S.P., **Kim, M.J.**, et al., (2013) Bringing the ocean into the laboratory to probe the chemical complexity of sea spray aerosol. *Proc. Natl. Acad. Sci.* **110** (19) 7550-5.

## INVITED TALKS

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6) NASA Student Airborne Research Program, UC Irvine, Irvine, CA (2017) “*Direct Observations of Ocean-Atmosphere Trace Gas Exchange and its Controlling Role in Atmospheric Chemistry in the Marine Boundary Layer.*”

5) Gordon Research Conference, Atmospheric Chemistry, Waterville, NH (2015) “Direct observations of BVOC Air-Sea Flux via Eddy Covariance in the Remote North Atlantic”.

4) Atmospheric Chemistry Colloquium of Emerging Senior Scientists (ACCESS XIII), Brookhaven National Laboratory, NY (2015) “Direct observations of BVOC Air-Sea Flux via Eddy Covariance in the Remote North Atlantic”.

3) S<sup>3</sup> Annual Scripps Student Symposium, La Jolla, CA (2014) “Beyond CLAW: Direct observations of biogenic volatile organic compound (BVOC) air-sea flux”.

2) High Wind Gas Exchange Study Data Meeting, University of Hawaii – Manoa (2014) “Preliminary observations of BVOC air-sea exchange via eddy covariance”.

1) Aerodyne ToF-CIMS Users' Meeting, Boulder, CO (2013) Characterizing a Rapid Response Inlet and Voltage Switching for Selective Declustering".

## PRESENTATIONS

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8) Atmospheric Tomography Experiment Science Team Meeting, *Boulder, Colorado* (2017) "Observational Constraints on a Potential Novel Source of Secondary Methanol from the Atmospheric Tomography Experiment". [Poster]

7) KORUS-AQ Data Meeting, *Jeju, Republic of Korea* (2017) "Observations of toluene oxidation products during the Korea-US Air Quality Study (KORUS)". [Poster]

6) American Geophysical Meeting Fall Meeting, *San Francisco, CA* (2016) "Observations of toluene oxidation products during the Korea-US Air Quality Study (KORUS)". [Poster]

5) 95th AMS Annual Meeting and 19th Conference on Air-Sea Interaction, *Phoenix, AZ* (2015) "Direct observations of Biogenic Volatile Organic Compound (BVOC) Air-Sea Exchange in the remote North Atlantic from the High-Wind Gas-Exchange Study (HiWinGS)". [Talk]

4) American Geophysical Union Meeting Fall Meeting, *San Francisco, CA* (2014) "Direct observations of Biogenic Volatile Organic Compound (BVOC) Air-Sea Exchange in the remote North Atlantic from the High-Wind Gas-Exchange Study (HiWinGS)". [Poster]

3) American Geophysical Meeting Fall Meeting, *San Francisco, CA* (2013) "Observations of Volatile Organic Compounds from the Remote North Atlantic: Preliminary Results from the High-Wind Gas-Exchange Study (HiWinGS)". [Talk]

2) Informal Symposium on Kinetics and Photochemical Processes in the Atmosphere, *Pasadena, CA* (2013) "Characterization of a high pressure, chemical ionization time-of-flight mass spectrometer for the measurement of alkylamines in the marine boundary layer". [Poster]

1) American Geophysical Union Meeting Fall Meeting, *San Francisco, CA* (2012) "Characterization of a high pressure, chemical ionization time-of-flight mass spectrometer for the measurement of alkylamines in the marine boundary layer". [Poster]

## SERVICE ACTIVITIES

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NASA Student Airborne Program, Invited Speaker	2017
QuEST, Founder and President, San Diego CA	2010-15
<i>STEM diversity group for 200+ graduate students, post-docs, staff, faculty, &amp; professionals.</i>	
Diversity Leadership Council, Scripps Institution of Oceanography	2011-15
<i>1 of 3 students on department advisory council for diversity initiatives</i>	
Team for Inclusion and Diversity in Engineering and Science (TIDES), SIO	2010 - 15
Teaching Associate, Citizen Schools, East Palo Alto, CA	2006-07
Curriculum Author & Instructor, Galileo Educational Services, Oakland, CA	2005-07

## **PROFESSIONAL ACTIVITIES**

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Panelist Reviewer – NASA	2017
Proposal Reviewer - National Science Foundation	2015-2017
Member: American Geophysical Union	2010-current