|  |  |
| --- | --- |
| **Ju-Mee Ryoo, Ph.D.** | |
| Contact  information | Atmospheric Science Branch, NASA Ames Research Center, Moffett Field, CA 94035  Email: ju-mee.ryoo@nasa.gov |
| Education | **Johns Hopkins University**  Ph.D. in Earth and Planetary Sciences  M.A. in Earth and Planetary Sciences  **Yonsei University**, South Korea  M.S. in Atmospheric Sciences  B.S. in Mathematics, Atmospheric Sciences (double major) |
| Research Interest | • Extreme weather (Atmospheric Rivers)) events and large-, synoptic-scale atmospheric dynamics  • Urban outflow of CO2 and CH4, and the meteorological impact on it.  • Investigation of Ozone sources such as long-range transport, and its relation to atmospheric dynamics using models and measurements |
| Awards & Honors | ***NASA Ames Contractor Council, Certificate of Excellence award*** as an ObseRvation of Aerosols above CLouds and their intEractionS (ORACLES) participant(2017, 2019)  ***San Jose State University*** Teaching faculty (2018-spring 2020)  ***Best poster award*** at the Chapman conference in convection session (2008)  ***Johns Hopkins University, Gillman Fellowship*** (2004-2005)  ***BK 21(Brain Korea 21 Century) Scholarship*** (2002)  ***Honor student Scholarship*** from the Alumni Association (1999-2000) |
| Selected Published & on-going Journal Publications | **Ryoo, J.-M.,** Leonhard Pfister, Rei Ueyama, Paquita Zuidema, Robert Wood, **2020**: Meteorological overview of the ORACLES (ObseRvations of Aerosols above Clouds and their intEractionS) campaign over the southeast Atlantic during 2016-2018. *In preparation*.  **Ryoo, J.-M.,** S. Chiao, J. R. Spackman, L. T. Iraci, R. B. Pierce, F. M. Ralph, J. E. Marrero, E. L. Yates, W. Gore, A. Martin, R. M. Dole, **2020**: Terrain Trapped Airflows and Precipitation Variability during an Atmospheric River, 355-375, *J. Hydromet*, 21, 355-375, https://doi.org/10.1175/JHM-D-19-0040.1  Langford, A.O., R. J. Alvarez II. J. Brioude, D. Caputi, S. A. Conley, S. Evan, I. C. Faloona, L. T. Iraci, G. Kirgis, J.E. Marrero, **J.-M. Ryoo**, C. J. Senff, and E.L. Yates, **2020**: Ozone production in the Soberanes smoke haze: impact on air quality in the San Joaquin Valley during the California Baseline Ozone Transport Study,  *J. Geophys. Res.,* https://doi.org/10.1029/2019JD031777  Yates, E.L., L.T.Iraci, L.W.Tarnay, J.D.Burley, C. Parworth, **J.-M.Ryoo**, **2020**: The effect of an upwind non-attainment area on ozone in California’s Sierra Nevada Mountains, *Atmos Environ*, 230, https://doi.org/10.1016/j.atmosenv.2020.117426  **Ryoo, J.-M.**, L. T. Iraci, T. Tanaka, J. E. Marrero, E. L. Yates, I. Fung, Anna M. Michalak, Jovan Tadić, and W. Gore, T. Paul Bui, J. M. Dean-Day, C. S. Chang **2019**: Quantification of CO2 and CH4 emissions over Sacramento, California based on divergence theorem using aircraft measurement. *Atmos. Meas. Tech.*, **12**, 2949–2966, https://doi.org/10.5194/amt-12-2949-2019.  Faloona, I. C., S. Chiao, A. Eiserloh, R. J. Alvarez II, G. Kirgis, A. Langford, C. Senff, D. Caputi, A. Hu, L. T. Iraci, E. L. Yates, J. E. Marrero**, J.-M. Ryoo,** S. Conley, S. Tanrikulu, J. Xu, and T. Kuwayama, **2019**: The California Baseline Ozone Transport Study (CABOTS), *BAMS*, https://doi.org/10.1175/BAMS-D-18-0302.1  Liu, C., S. Chiao, **J.-M. Ryoo**, **2019**: Asian long-range transport in relation to atmospheric rivers in northern California, *Atmosphere,* 10, 313; doi:10.3390/atmos10060313.  **Ryoo, J.-M.,** M. S. Johnson, E. L. Yates, L. T. Iraci, R. B. Pierce, T. Tanaka, W. Gore, **2017**: Investigating sources of ozone over California using AJAX airborne measurements and models: assessing the long-range transport, *Atmos. Environ*, **155**, 53-67, http://dx.doi.org/10.1016/j.atmosenv.2017.02.008.  Tadić, J., A. Michalak, L. Iraci, V. Ilić, S., Biraud, D. Feldman, B. Thaopaul, M. S. Johnson, M. Loewensterin, S. Jeong, M. Fischer, E. Yates, **J.-M. Ryoo**, **2017**: Elliptic cylinder airborne sampling and geostatistical mass balance approach for quantifying local greenhouse gas emissions, *Environ. Sci. Tech*., 51 (17), 10012-10021, DOI: 10.1021/acs.est.7b03100  Yates, E. L., M. S. Johnson, L. T. Iraci, **J.-M. Ryoo**, B. J. Johnson, M. A. Ives, T. LeBlanc, M. S. Gustin, T. Tanaka, W. Gore, **2017**: Western US tropospheric ozone: An assessment of vertical, seasonal and spatial variations over California and Nevada, *J. of Geophys. Res.: Atmos*., 122, https://doi.org/10.1002/2016JD026266.  **Ryoo, J.-M.**,D. E. Waliser, D. W. Waugh, S. Wong, E. J. Fetzer, I. Fung, **2015**:Classification of atmospheric river events on the U.S. west coast using a trajectory model., *J. Geophys. Res. Atmos.*, 120, doi:10.1002/2014JD022023.  **Ryoo, J.-M.,** Y. Kaspi, D. W. Waugh, G. N. Kiladis, D. E. Waliser, E. J. Fetzer, J. Kim, **2013**: Impact of Rossby Wave Breaking on U.S. West Coast Winter Precipitation during ENSO Events. *J. Climate*, **26**, 6360–6382, http://dx.doi.org/10.1175/JCLI-D-12-00297.1  **Ryoo, J.-M.**, T. Igusa, and D. W. Waugh, **2009**: PDFs of Tropical Tropospheric Humidity: Measurements and Theory, *J. Climate*, 22, 3357-3373.  **Ryoo, J.-M.**, D. W. Waugh, and A. Gettelman, **2008**: Variability of subtropical upper tropospheric humidity, *Atmos. Chem. Phys.*, 8, 1041-1067.  H.-Y. Chun, and **J.-M. Ryoo**, **2005**: A Case Study of Dynamical Linkage Between the Troposphere and Stratosphere Associated with Stratospheric Major Sudden Warmings in 1979 and 1984, *Journal of Korean Meteorological Society,* **41**, 3, 415-430.  **Ryoo, J.-M.** and H.-Y. Chun, **2005**: Stratospheric Major Sudden Warmings Revealed in NCEP Reanalysis Data for 41 years (1958-1999), *J. Korean. Meteorol. Soc.,* 41, 2, 173-190. |