

## Brian Hannon Kahn

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### Education

Ph.D, 2004 Atmospheric Sciences, University of California at Los Angeles (UCLA)  
Department of Atmospheric and Oceanic Sciences  
M.S., 2001 Atmospheric Sciences, UCLA  
B.S., 1995 Meteorology (with honors), San Jose State University (SJSU)

### Experience

2011– Research Scientist, JPL  
2009–2011 Scientist, JPL  
2008 Assistant Researcher IV, UCLA/JIFRESSE  
2005–2008 NASA Postdoctoral Program (NPP) Fellow  
2000–2004 Graduate Research Assistant, UCLA  
1999–2002 Teaching Fellow, UCLA  
1998–2004 On-Air Personality for *Pulse of This Planet*, KKUP, 91.5 FM, Cupertino, CA  
1996–1997 Exchange Student, Urals State University, Ekaterinburg, Russia  
1994–1995 Summer Intern, National Weather Service Forecast Office, Anchorage, AK

### Honors and Awards

NASA Earth Systems Science (ESS) Fellowship (2001–2004)  
Brian Bosart Award, UCLA (2001)  
Neiburger Teaching Award, UCLA (2000)  
Scholarship to attend Urals State University, Ekaterinburg, Russia (1996–1997)

### Professional Activities (current)

Co-Investigator, Polar Radiant Energy in the Far InfraRed Experiment (PREFIRE) (2018–)  
Lead cloud scientist for the NASA/JPL Atmospheric Infrared Sounder (AIRS) project (2005–)

### Refereed Publications (H=24 WoS, H=30 GS)

- [82] Richardson, M. T., B. H. Kahn, and P. M. Kalmus (2023), Trajectory-enhancement of low-Earth orbiter thermodynamic retrievals to predict convection: a simulation study, *Atmos. Chem. Phys.* <https://doi.org/10.5194/egusphere-2023-97> (sub judice)
- [81] Kahn, B. H., E. B. Berndt, J. L. Case, P. M. Kalmus, and M. T. Richardson (2023), A nowcasting approach for low Earth orbit hyperspectral infrared soundings within the convective environment. *Wea. Forecast.* (sub judice)
- [80] Yue, Q., E. J. Fetzer, L. Wang, B. H. Kahn, N. Smith, J. Blaisdell, K. G. Meyer, M. Schreier, B. Lambigtsen, and I. Tkatcheva (2022), Evaluating the consistency and continuity of pixel-scale cloud property data records from Aqua and SNPP, *Atmos. Meas. Tech.*, **15**, 2099–2123, <https://doi.org/10.5194/amt-15-2099-2022>
- [79] L'Ecuyer, T. S., B. J. Drouin, J. Anheuser, M. Grames, D. S. Henderson, X. Huang, B. H. Kahn, J. E. Kay, B. H. Lim, M. Mateling, A. Merrelli, N. B. Miller, S. Padmanabhan, C. Peterson, N. Schlegel, M. L. White, and Y. Xie (2021), The Polar Radiant Energy in the Far-Infrared Experiment: A new

- perspective on Polar longwave energy exchanges, *Bull. Amer. Met. Soc.* **102**(7), E1431-E1449, doi:10.1175/BAMS-D-20-0155.1
- [78] Thompson, D. R., B. H. Kahn, P. G. Brodrick, M. D. Lebsock, M. Richardson, and R. O. Green (2021), Spectroscopic imaging of sub-kilometer spatial structure in lower-tropospheric water vapor, *Atmos. Meas. Tech.*, **14**, 2827–2840, <https://doi.org/10.5194/amt-14-2827-2021>
- [77] Sandford, M. W., D. R. Thompson, R. O. Green, B. H. Kahn, R. Vitulli, S. Chien, A. Yelamanchili, and W. Olson-Duvall (2020), Global cloud property models for real-time triage on board visible-shortwave infrared spectrometers, *Atmos. Meas. Tech.*, **13**, 7047–7057, <https://doi.org/10.5194/amt-13-7047-2020>
- [76] Kahn, B. H., B. J. Drouin, and T. S. L’Ecuyer (2020), Assessment of sampling sufficiency for low-cost satellite missions: Application to PREFIRE, *J. Atmos. Ocean. Tech.*, **37**, 2283–2298, doi: 10.1175/JTECH-D-20-0023.1.
- [75] Saito, M., P. Yang, X. Huang, H. E. Brindley, M. G. Mlynczak, and B. H. Kahn (2020), Spaceborne middle- and far-infrared observations improving nighttime ice cloud property retrievals, *Geophys. Res. Lett.*, **47**, e2020GL087491. <https://doi.org/10.1029/2020GL087491>
- [74] Liu, S., P. W. Staten, and B. H. Kahn (2020), Improved detection of interannual cloud variability over the Southern Hemisphere using legacy satellites, *J. Climate*, **33**, 8225–8236, doi:10.1175/JCLI-D-19-0758.1
- [73] Peterson, C. A., Q. Yue, B. H. Kahn, E. J. Fetzer, and X. Huang (2020), Evaluation of AIRS Cloud Phase Classification over the Arctic Ocean against Combined CloudSat-CALIPSO Observations, *J. Appl. Meteor. Climatol.*, **59**, 1277–1294, doi:10.1175/JAMC-D-20-0016.1
- [72] Hulley, G. C., B. Dousset, and B. H. Kahn (2020), Rising trends in heatwave metrics across Southern California, *Earth’s Future*, **8**, e2020EF001480, <https://doi.org/10.1029/2020EF001480>
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- [70] Guillaume, A., B. H. Kahn, E. J. Fetzer, Q. Yue, G. J. Maniçon, B. D. Wilson, and H. Hua (2019), Footprint-scale cloud type mixtures and their impacts on Atmospheric Infrared Sounder cloud property retrievals, *Atmos. Meas. Tech.*, **12**, 4361–4377, <https://doi.org/10.5194/amt-12-4361-2019>.
- [69] Kalmus, P., B. H. Kahn, S. W. Freeman, and S. C. van den Heever (2019), Trajectory-enhanced AIRS observations of environmental factors driving severe convective storms, *Mon. Wea. Rev.*, **147**, 1633–1653, doi:10.1175/MWR-D-18-0055.1.
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- [42] Wong, S., E. J. Fetzer, M. Schreier, <sup>[L]</sup><sub>[SEP]</sub>G. Manipon, E. F. Fishbein, B. H. Kahn, Q. Yue, and F. W. Irion (2015), Cloud-induced uncertainties in <sup>[L]</sup><sub>[SEP]</sub>AIRS and ECMWF temperature and specific humidity, *J. Geophys. Res. Atmos.*, **120**, doi:10.1002/2014JD022440. <sup>[L]</sup><sub>[SEP]</sub>
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