

*Biographical Sketch*  
CHARLES S. (CHARLIE) ZENDER

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**i. PROFESSIONAL PREPARATION**

Harvard University, Cambridge MA	Physics	B.A.	1990
University of Colorado at Boulder	Astrophys., Planetary, & Atmospheric Sci.	M.S.	1993
University of Colorado at Boulder	Astrophys., Planetary, & Atmospheric Sci.	Ph.D.	1996

**ii. APPOINTMENTS**

9/10– Vice Chair of Graduate Studies, Department of Earth System Science, University of California, Irvine (UCI)

7/10– Professor of Earth System Science, UCI

7/05–6/10 Associate Professor of Earth System Science, UCI

8/07–8/08 Visiting Researcher, Laboratoire de Glaciologie et Géophysique de l'Environnement (CNRS/LGGE), Grenoble, France

3/00–2/06 Affiliate Scientist of the Climate and Global Dynamics (CGD) Division, National Center for Atmospheric Research (NCAR), Boulder, CO

7/99–6/05 Assistant Professor of Earth System Science, UCI

7/98–6/99 Visiting Scientist in Atmospheric Chemistry and CGD Divisions, NCAR

7/96–6/98 Postdoctoral Fellow, Advanced Studies Program, NCAR

8/91–6/96 Graduate Research Assistant, University of Colorado at Boulder and NCAR

**iii. (a). FIVE PUBLICATIONS RELATED TO PROPOSED TOPIC (author is/was in our group: \*\*\*high school, \*\*undergraduate, \*graduate student, †post-doc, ‡researcher)**

**Zender, C. S.**, and J. Talamantes (2006), Climate controls on valley fever incidence in Kern County, California, *Int. J. Biometeorol.*, **59**(3), 174–182, doi:10.1007/s00484-005-0007-6. ([PDF](#))

Talamantes, J., S. Behseta, and **C. S. Zender** (2007), Statistical Modeling of Valley Fever Data in Kern County, California, *Int. J. Biometeorol.*, **51**(4), 307–313, doi:10.1007/s00484-006-0065-4. ([PDF](#))

**Zender, C. S.**, and \***E. Y. Kwon** (2005), Regional Contrasts in Dust Emission Responses to Climate, *J. Geophys. Res.*, **110**(D13), D13201, doi:10.1029/2004JD005501. ([PDF](#))

**Zender, C. S.**, †**H. Bian**, and ‡**D. Newman** (2003), Mineral Dust Entrainment And Deposition (DEAD) model: Description and 1990s dust climatology, *J. Geophys. Res.*, **108**(D14), 4416, doi:10.1029/2002JD002775. ([PDF](#))

**Zender, C. S.**, ‡**D. Newman**, and O. Torres (2003), Spatial Heterogeneity in Aeolian Erodibility: Uniform, Topographic, Geomorphic, and Hydrologic Hypotheses, *J. Geophys. Res.*, **108**(D17), 4543, doi:10.1029/2002JD003039. ([PDF](#))

**iii. (b). FIVE ADDITIONAL PUBLICATIONS**

†**Allen, R. J.**, S. C. Sherwood, J. R. Norris, and **C. S. Zender** (2012), Recent Northern Hemisphere tropical expansion primarily driven by black carbon and tropospheric ozone, *In Press in Nature*. ([PDF](#))

**Zender, C. S.**, \*\*\***A. G. Krolevski**, \***M. G. Tosca**, and J. T. Randerson (2012), Tropical biomass burning smoke plume size, shape, reflectance, and age based on 2001–2009 MISR imagery of Borneo, *Atmos. Chem. Phys.*, **12**, 3437–3454, doi:10.5194/acp-12-3437-2012. ([HTML](#), [PDF](#))

\***Han, Q.**, and **C. S. Zender** (2010), Desert dust aerosol age characterized by mass-age tracking of tracers, *J. Geophys. Res. Atm.*, **115**, D22201, doi:10.1029/2010JD014155. ([PDF](#))

\***Capps, S. B.**, and **C. S. Zender** (2010), Estimated global ocean wind power potential from QuikSCAT observations, accounting for turbine characteristics and siting, *J. Geophys. Res.*, **115**, L09102, doi:10.1029/2009JD012679. ([PDF](#))

\***Flanner, M. G.**, **C. S. Zender**, P. G. Hess, N. M. Mahowald, T. H. Painter, V. Ramanathan, and P. J. Rasch (2009), Springtime Warming and Reduced Snow Cover from Carbonaceous Particles, *Atmos. Chem. Phys.*, **9**(7), 2481–2497, <http://www.atmos-chem-phys.net/9/2481/2009>. ([HTML](#), [PDF](#))

#### iv. SYNERGISTIC ACTIVITIES

1. Expert Reviewer, IPCC WG1 TAR, AR4, and AR5 Reports, 2000, 2006, 2012.
2. Author and maintainer, netCDF Operators ([NCO](#)), 1997–present.
3. Author and maintainer, Dust Entrainment and Deposition ([DEAD](#)) Model, 2002–present.
4. Annual [speaker](#), Osher Lifelong Learning Institute ([OLLI](#)), 2003–present.
5. Annual [speaker](#), [Aquarium of the Pacific](#), Long Beach, CA. 2007–present.

#### v. (a) COLLABORATORS (past 48 months) & CO-EDITORS (past 24 months)

S. B. Capps (UCLA), P. Chýlek (LANL), F. Dominé (LGGE), M. Dubey (LANL), P. R. Edwards (DRI), J. Famiglietti (UCI), M. G. Flanner (UM), C. Folland (Hadley Centre), S. Jenks (UCI), N. M. Mahowald (Cornell), C. Measures (U. Hawaii), J. McConnell (DRI), J. K. Moore (UCI), T. Painter (NSIDC), J. T. Randerson (UCI), R. Rew (UCAR), P. J. Rasch (PNL), J. Talamantes (CSUB)

#### v. (b) GRADUATE AND POSTDOCTORAL ADVISORS

J. T. Kiehl (NCAR), G. T. Thomas (CU), W. A. Cooper (NCAR)

#### v. (c) THESIS ADVISOR AND POSTGRADUATE SCHOLAR SPONSOR

Chair or Co-Chair of Thesis Committee: Dr. Scott Capps (UCI), Dr. Mark Flanner (UCI), Dr. Alf Grini (U. Oslo), Dr. Qin Han (UCI), Dr. Mike Tosca (UCI), Dr. Daniel Wang (UCI)

Member of Thesis Committee: Ms. Ann Bardin (UCI), Dr. Aaron Berg (UCI), Dr. Huisheng Bian (UCI), Dr. Rick Hansell (UCLA), Dr. Brian Kahn (UCLA), Dr. Aparna Krishnamurthy (UCI), Dr. Calvin Liang (UCLA), Ms. Huidong Liu (UCI), Ms. Zhao Liu (UCI), Dr. MinHui Lo (UCI), Dr. Marco Rodriguez (UCI)

Postdoctoral scholars supervised: Dr. Robert Allen (UCR), Dr. Huisheng Bian (UMBC GEST/NASA GSFC), Dr. Xianwei Wang (Sun Yat-Sen Univ.)

Total number of graduate students supervised: 6.

Total number of postgraduate scholars sponsored: 3.