

# Charles Dunbar Koven

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- CONTACT INFORMATION** University of California, Berkeley *Tel:* (510) 643-4248  
Earth and Planetary Science Department *Fax:* (510) 643-9980  
301 McCone Hall *E-mail:* ckoven@gmail.com  
Berkeley, CA 94720-4767 USA *Web:* www.atmos.berkeley.edu/~charlie
- RESEARCH INTERESTS** Global climate change; atmosphere-land surface interactions; sources and climatic effects of natural and anthropogenic aerosols; drought in semiarid regions; the global carbon and dust cycles; high-latitude biogeochemical feedbacks to climate change.
- EDUCATION** University of California, Berkeley, CA, USA  
Ph.D., Environmental Science, Policy, and Management, December 2006  
· Dissertation: *On the sources, composition, and climatic effects of mineral dust in the atmosphere*  
· Advisor: Inez Fung  
Yale University, New Haven, CT, USA  
B.S., Geology, May 1998  
· Thesis: *Experimental determination of serpentinite dehydration kinetics: A mechanism for determining earthquake periodicity?*  
· Advisor: Phil Ihinger
- HONORS AND AWARDS** NASA: Earth System Science Fellowship 2004-2006  
Yale University: Penfield prize for mineralogy, May 1998
- PUBLICATIONS** Buermann, W., B. R. Lintner, C. D. Koven, A. Angert, J. E. Pinzon, C. J. Tucker, and I. Fung, (2007) The changing carbon cycle at Mauna Loa Observatory. *Proceedings of the National Academies of the United States of America*, doi : 10.1073/pnas.0611224104  
Koven, C. D., and I. Fung (2006), Inferring dust composition from wavelength-dependent absorption in Aerosol Robotic Network (AERONET) data, *J. Geophys. Res.*, 111, D14205, doi : 10.1029/2005JD006678.  
Lintner, B. R., W. Buermann, C. D. Koven, and I. Y. Fung (2006), Seasonal circulation and Mauna Loa CO<sub>2</sub> variability, *J. Geophys. Res.*, 111, D13104, doi : 10.1029/2005JD006535.  
Perron, J. T., M. P. Lamb, C. D. Koven, I. Y. Fung, E. Yager, and M. Ádámkóvics (2006), Valley formation and methane precipitation rates on Titan. *J. Geophys. Res.*, 111, E11001, doi : 10.1029/2005JE002602.
- PAPERS IN REVIEW** Koven, C. D., and I. Fung, Identifying global dust source areas using high resolution land surface form. *J. Geophys. Res.*, *In review*.
- PAPERS IN PREPARATION** Goldstein, A. H., C. D. Koven, C. L. Heald, and I. Y. Fung, Space Observations Reveal Biogenic Aerosols Dominate in Southeastern US. *In preparation*.

Koven, C. D., and I. Fung, Dust and drought in the US Great Plains. *In preparation.*

CONFERENCE  
PRESENTATIONS

Koven, C. D., A. H. Goldstein, C. L. Heald, and I. Y. Fung, Space Observations Reveal Biogenic Aerosols Dominate in Southeastern US. AGU Fall meeting, San Francisco, 2007

Koven, C. D., and Fung, I., Modelling dust-drought interactions in the US Great Plains. AGU Fall meeting, San Francisco, 2006

Koven, C. D., and Fung, I., Inferring dust composition from wavelength-dependent absorption in AERONET data. AGU Fall meeting, San Francisco, 2005

Koven, C. D., and Fung, I., What can dust deposition observations in Greenland tell us about dust sources in Asia? Berkeley Atmospheric Science Center Symposium, Berkeley, 2003

EXPERIENCE

University of California, Berkeley, CA USA  
*Postdoctoral Researcher*

January 2007-June 2008

University of California, Berkeley, CA USA  
*Graduate Student Researcher*

September 2000-December 2006

University of California, Berkeley, CA, USA  
*Editor: Berkeley Science Review*

June 2005-May 2006

Wrote and edited for a general-audience scientific magazine that covered research and science-policy issues at Berkeley.

University of California, Berkeley, CA USA

*Teacher: Early Academic Outreach Program: Pre-College Academy*

July 2005

Taught environmental studies course in a program for motivated students at local underperforming high schools to take college-level summer courses at Berkeley.

University of California, Berkeley, CA USA

*Graduate Student Instructor: Biology 1B*

September-December 2001

Taught lab and discussion sections for introductory biology class, focusing on evolution, ecology, and plant biology.

Melcher Media, New York, NY USA

*Editorial Assistant*

August 1998-June 1999

Edited text and photography for several illustrated books.

Yale University, New Haven, CT, USA

*Member: Freshman and Varsity Crews*

September 1994-May 1997

LANGUAGES

French, Spanish: reading, basic speaking

COMPUTER SKILLS

*Languages:* FORTRAN, some C, python, Unix shell scripts

*Data Analysis:* IDL, ENVI, MATLAB, NCL, Excel

*Operating Systems:* Unix/Linux, Macintosh OSX, Windows.