

## Jacob Edman

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| CURRENT                  | PhD Candidate, Department of Earth and Planetary Science<br><b>University of California, Berkeley</b>  | <i>2012-Present</i> |
| RESEARCH INTERESTS       | Atmospheric dynamics; tropical convection; climate change  |                     |
| EDUCATION                | <b>University of California, Irvine,</b><br><br>B.S., Physics <i>June 2011</i><br>B.S., Earth and Environmental Sciences <i>June 2011</i> <ul style="list-style-type: none"><li>• <i>Summa Cum Laude</i>, Honors in Physics, Campuswide Honors</li><li>• Honors Thesis in Physics, "Exploring the link between close companions and star formation history of isolated galaxies using SDSS data releases 6 and 7"</li></ul><br><b>University of Edinburgh, United Kingdom</b> <i>Fall 2010</i><br><br>Physics, Geophysics  |                     |
| HONORS AND AWARDS        | NSF Graduate Research Fellow <i>April 2014 - present</i><br>NSF Graduate Fellowship, Honorable Mention <i>April 2012, 2013</i><br>elected to Phi Beta Kappa <i>June 2010</i><br>elected to Sigma Pi Sigma <i>June 2010</i><br>Herbert Chen Award (UC Irvine physics) <i>June 2010</i><br>UC Irvine Excellence in Writing: Science and Technology Award <i>May 2010</i><br>Regents' Scholar, UC Irvine <i>2007 - 2011</i><br>National Merit Scholar <i>2007 - 2011</i><br>UC Irvine Dean's List <i>2007 - 2011</i>  |                     |
| PUBLICATIONS             | Edman, J.P. and Romps, D.M. (2015), Self-consistency tests of large-scale dynamics parameterizations for single-column modeling, <i>Journal of Advances in Modeling Earth Systems</i> , <b>7</b> , 320334, doi:10.1002/2014MS000378.<br><br>Chiang, J.C.H, Fung, I.Y., Wu, C., Cai, Y. , Edman, J.P., Liu, Y., Day, J.A., Bhattacharya, T., Mondal, Y., and Labrousse, C.A., (2015), Role of seasonal transitions and westerly jets in East Asian paleoclimate, <i>Quaternary Science Reviews</i> , <b>108</b> , 111-129, doi:10.1016/j.quascirev.2014.11.009.<br><br>Edman, J.P. and Romps, D.M. (2014), An improved weak pressure gradient scheme for single-column modeling. <i>Journal of the Atmospheric Sciences</i> . <b>71</b> , 2415-2429. doi:10.1175/JAS-D-13-0327.1<br><br>Edman, J.P., Barton, E.J. and Bullock, J.S. (2012), Exploring the links between star formation and minor companions around isolated galaxies. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>424</b> : 1454-1460. doi:10.1111/j.1365-2966.2012.21335.x |                     |
| CONFERENCE PRESENTATIONS | Edman, J.P. and Romps, D.M. (2016) Damping of Gravity Waves by Radiation to the Stratosphere. Oral, 32nd AMS Meeting on Hurricanes and Tropical Meteorology, San Juan, Puerto Rico, 21 Apr.  |                     |

Edman, J.P. and Romps, D.M. (2014) Parameterizing large-scale dynamics in single-column models with the weak-pressure-gradient approximation. Oral, 31st AMS Meeting on Hurricanes and Tropical Meteorology, San Diego, Calif, 30 Mar.

Edman, J.P. and Romps, D.M. (2013) Parameterizing large-scale dynamics with the weak pressure gradient approximation. abstract A33K-07, Oral. 2013 Fall Meeting, AGU, San Francisco, Calif, 9-13 Dec.

Solander, K., Edman, J., Lo, M, Reager, J.T., Thomas, B, David, C, Famiglietti, J.S., Singh, R.S., and Miller, N.L. Simulating reservoir operations in California for use in a coupled land-surface and human impacts model (CLM-HUM). abstract GC41A-0959; Poster. 2012 Fall Meeting, AGU, San Francisco, Calif. 3-7 Dec.

Edman, J.P., Lo, M., and Famiglietti, J.S. A high-resolution hydrologic model of California. abstract H41C-1045, Poster. 2011 Fall Meeting, AGU, San Francisco, Calif. 5-9 Dec.

Famiglietti, J. S.; Lo, M.; Kim, H.; Edman, J.; Sanders, B. F.; Castle, S.; Liu, Z.; Miller, N. L.; Singh, R. S.; Valentine, D. W.; Zaslavsky, I. Accelerating the Development of Land Surface Hydrological Modeling to Address Societal Needs: Application of an Integrated Data and Modeling Framework to California. abstract GC34B-08, Oral. 2011 Fall Meeting, AGU, San Francisco, Calif. 5-9 Dec.

RESEARCH  
EXPERIENCE

**Graduate student researcher**

*August 2012 - Present*

Advisor: Professor David Romps

Department of Earth and Planetary Science, University of California, Berkeley

- Investigating the fundamental dynamics of tropical convection, including the response of tropical convection to climate change.
- Developing methods for parameterizing large-scale dynamics in single-column and cloud resolving models

**Junior Modeling Specialist**

*July 2011 - July 2012*

Supervisor: Professor James Famiglietti

UC Center for Hydrologic Modeling

- Developed high-resolution land surface and hydrologic models to better understand the response of California's hydrologic cycle to future climate change

**Undergraduate researcher**

*September 2008 - June 2011*

Advisor: Dr. Elizabeth Barton

Department of Physics, University of California, Irvine

- Studied galaxy evolution and triggered star formation using data from Sloan Digital Sky Survey

TEACHING  
EXPERIENCE

**Graduate student instructor**

*January 2015 - May 2015*

L&S 70B: Global Warming

Supervisor: Professor John C.H. Chiang and Professor Nathan Sayre

Department of Earth and Planetary Science, University of California, Berkeley

**Graduate student instructor**

*August 2013 - December 2013*

EPS 181: Atmospheric Physics and Dynamics

Supervisor: Professor David Romps

Department of Earth and Planetary Science, University of California, Berkeley

**Physics 2 Teaching Assistant**

*September 2009 - December 2009*

Supervisor: Professor Stephen Barwick

Department of Physics, University of California, Irvine