CHENG LI

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Education

2016 --	**Jet Propulsion Laboratory**
	NASA Postdoc Program fellow
2011 -- 2016	**California Institute of Technology**
	Ph.D. in Planetary Science
2007 -- 2011	**Peking University**
	B.S. in Atmospheric Science

Awards

2016	NASA Postdoc Program Fellowship (NPP)
2016	Chinese Government Award for Outstanding Self-financed Student Abroad
2015	NASA Earth and Space Science Fellowship (NESSF)
2010	Model Student of Academic Excellence by Peking University
2009	Chinese National Innovative Training Project Fellowship
2008 -- 2011	The Junyuan Tang College Award
2008	The Ping'an Insurance Inspirational Scholarship
2006	The 1st prize of the 23th National Olympiad in Physics in Shanghai

Invited talk

2016 / 01	Water, ammonia and the 30-year cycle of Saturn's storm	Macau University of Science and Technology Macau, China
2015 / 12	A story of Saturn's giant storms	Peking University Beijing, China
2015 / 12	Saturn's giant storms: Moist convection in hydrogen atmospheres	48th AGU Fall Meeting San Francisco, CA

Conference

2016 / 12	49th AGU Fall Meeting, San Francisco, CA | Ammonia in Jupiter's troposphere: first result from Juno Microwave Radiometer
2015 / 11	Juno Science Meeting, JHU/APL | Estimating water, ammonia and dynamics with inversions of Juno microwave data
2015 / 11	47th DPS, Washington D.C. | Revisiting the Galileo Probe result by

	a stretched atmospheric model
2015 / 10	Cassini PSG Meeting, Caltech/JPL | Saturn's Giant Storms:Moist Convection in Hydrogen Atmospheres
2014 / 10	46th DPS, Tucson, AZ | Towards a complete understanding of hydrocarbon chemistry in the stratosphere of Titan: from C-1 to C-3
2014 / 12	47th AGU Fall Meeting, San Francisco, CA | Moist convection in hydrogen atmospheres and the frequency of Saturn's giant storms
2013 / 10	45th DPS, Denver, CO | Modeling Saturn's giant storms
2013 / 01	NCAR, Denver, CO | Weather Research and Forecasting Model (WRF) workshop
2012 / 10	44th DPS, Reno, NV | Revision of photochemical modeling of Titan's atmosphere
2012 / 12	45th AGU Fall Meeting, San Francisco, CA | Exploring the Giant Saturnian Storm in 2010: A Model of Moist Convection

Teaching experience

2015 / 01	Lecturer on Python Workshop for Caltech Graduate Student Council	Two-hour
2014 / 12	Teaching assistant for GE 150 (Planetary Atmosphere)	
2013 / 10	Lecturer on Atmospheric Radiation for ESE 101 (Earth's Atmosphere)	One-hour
2013 / 09	Teaching assistant for ESE 101 (Earth's Atmosphere)	
2013 / 05	Teaching assistant for Ge 1 (Earth and Environment)	
2012 / 09	Lecturer on Linux for Caltech Planetary Science Division Resource Seminars	One-hour

Publications

[10] **Li, Cheng**, A.P. Ingersoll, F.A. Oyafuso, S. Ewald, M.A. Janssen, 2017. The distribution of ammonia on Jupiter from inversion of Juno Microwave Radiometer data. *submitted to GRL*

[9] Ingersoll, A.P., **Cheng Li**, M.A. Janssen, 2017. Kinematics of Jupiter's atmosphere from 1 to 100 bars. First results from the Juno microwave radiometer. *submitted to GRL*

[8] Orton, G.S., T. Momary, A.P. Ingersoll, A. Adriani, C.J. Hanssen, M. Jannsen, J. Arballo, S.K. Atreya, S. Bolton, S. Brown, M. Caplinger, D. Grassi, **Cheng Li**, S. Levin, M.L. Moriconi, A. Mura, G. Sindoni, 2017. Multiple-Wavelength Sensing of Jupiter During the Juno Mission's First Perijove Passage. *submitted to GRL*

[7] Bolton, S.J., A. Adriani, V. Adumitroaie, J. Anderson, S. Atreya, J. Bloxham, S. Brown, J. E.P. Connerney, E. DeJong, W. Folkner, D. Gautier, S. Gulkis, T. Guillot, C. Hansen, W.B. Hubbard, L. Iess, A. Ingersoll, M. Janssen, J. Jorgensen, Y. Kaspi, S.M. Levin, **Cheng Li**, et al., 2017. Jupiter's interior and deep atmosphere: the first close polar pass with the Juno spacecraft. *Science, in revision*

[6] Janssen, M.A., J.E. Oswald, S.T. Brown, S. Gulkis, S.M. Levin, S.J. Bolton, M.D. Allison, S.K. Atreya, D.Gautier, A.P. Ingersoll, J.I. Lunine, G.S. Orton, T.C. Owen, P.G. Steffes, V. Adumitroaie, A. Bellotti, L.A. Jewell, **Cheng Li**, et al., 2017. MWR: Microwave radiometer for the Juno Mission to Jupiter. *Space Science Reviews, in revision*

[5] Trammell, H., L. Li, X. Jiang, Y. Pan, M.A. Smith, E.A. Bering III, S.M. Horst, A.R. Vasavada, A.P. Ingersoll, M.A. Janssen, R.A. West, C.C. Porco, **Cheng Li**, A.A. Simon, K.H. Baines, 2016. Vortices in Saturn's Northern Hemisphere (2008-2015) observed by Cassini ISS. *Journal of Geophysical Research Planets, 121.9, 1814-1826*

[4] **Li, Cheng**, A. P. Ingersoll, 2015. Moist convection in hydrogen atmospheres and the frequency of Saturn's giant storms, *Nature Geoscience, 8, 398-403.*

[3] **Li, Cheng**, X. Zhang, P. Gao, Y. L. Yung, 2015. Vertical distribution of C_3-hydrocarbons in the stratosphere of Titan, *Astrophysical Journal Letters, 803, L19.*

[2] Gao, P., R. Y. Hu, T. D. Robinson, **Cheng Li**, Y. L. Yung, 2015. Stabilization of CO_2 atmosphere on exoplanets around M dwarf stars, *Astrophysical Journal, 806, 249.*

[1] **Li, Cheng**, X. Zhang, et al., 2014. A non-monotonic eddy diffusivity profile of Titan's atmosphere revealed by Cassini observations. *Planetary and Space Science*, 104, Part A(0), 48-58.

Manuscript in preparation

Li, Cheng, M.A. Janssen, A.P. Ingersoll, 2016. Aftermath of the Great Saturn Storm of 2010-2011 as observed by the Cassini RADAR 2.2-cm l radiometer (*in preparation*)
Fan, Siteng, D. Shemanski, **Cheng Li**, Y.L. Yung, 2016. Retrieval of hydrocarbon and nitrile species in Titan's upper atmosphere (*in preparation*)
Li, Cheng, X. Zhang, T.H. Le, Y.L. Yung, 2016. A validated radiative transfer program for scattering atmospheres: with application to giant planets in the solar system and exoplanets (*in preparation*)
Li, Cheng, A.P. Ingersoll, 2016. Accurate modeling of thermodynamics for giant planet atmospheres using ideal gas (*to be submitted to Icarus*)

Media Release

- Caltech News: Explaining Saturn's Great White Spots
http://www.caltech.edu/news/explaining-saturns-great-white-spots-46500
- NASA/JPL News: NASA-funded study explains Saturn's epic tantrums
http://www.jpl.nasa.gov/news/news.php?feature=4546
- CBS News: Storms the size of Earth on Saturn, explained
http://www.cbsnews.com/news/storms-the-size-of-earth-on-saturn-explained/
- Space.com News: Mystery of Saturn's epic planet-encircling storms explained
http://www.space.com/29088-saturn-giant-storms-mystery-solved.html
- Spaceflightinsider.com News: Cassini cracks the code of Saturn's massive storms
http://www.spaceflightinsider.com/missions/solar-system/study-explains-saturns-giant-storms/
- Afpbb.com News: 土星の巨大嵐「大白斑」の謎を解明、米大学研究
http://www.afpbb.com/articles/-/3045309