CURRICULUM VITAE

Kyle Robert Stewart

CONTACT INFORMATION

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RESEARCH INTERESTS

Galaxy Formation & Evolution; Gas Accretion; Galaxy Halos; Cosmological Simulations; Galaxy Simulations; Galaxy Mergers; Dark Matter; Large Scale Structure

EDUCATION

Doctor of Philosophy in Physics — **2009**
University of California, Irvine — *Irvine, California*

Master of Science in Physics — **2006**
University of California, Irvine — *Irvine, California*

Bachelor of Science in Astrophysics — **2004**
University of California, Los Angeles — *Los Angeles, California*

PROFESSIONAL APPOINTMENTS

Assistant Professor of Physics — **to begin Aug. 2012**
California Baptist University — *Riverside, California*

RESEARCH EXPERIENCE

NASA Postdoctoral Program (NPP) Fellow — **2009–2012**
Jet Propulsion Laboratory — *Pasadena, California*
NPP Mentor: Leonidas Moustakas, Ph.D.

Graduate Student Researcher — **2005–2009**
University of California, Irvine — *Irvine, California*
Advisor: James Bullock, Ph.D.

Undergraduate Research Assistant — **2003–2004**
University of California, Los Angeles — *Los Angeles, California*
Advisor: Matt Malkan, Ph.D.

TEACHING EXPERIENCE

Co-mentor: SURF program at JPL — **Summer 2010**
Caltch's Summer Undergraduate Research Fellowship — *Pasadena, California*
Served as co-mentor for undergraduate student from UCLA
Acted as his primary research mentor at JPL for 10 weeks

Teaching Assistant: Introduction to Astronomy — **Spring 2006**
University of California, Irvine: Course 20A — *Irvine, California*
3 discussion sections, grading, office hours

Teaching Assistant: Cosmology — **Winter 2006**
University of California, Irvine: Course 20B — *Irvine, California*
4 discussion sections, grading, office hours

Teaching Assistant: Classical Physics — **Spring 2005**
University of California, Irvine: Courses 7B, 7LB — *Irvine, California*
2 discussion sections, grading, office hours
3 tutorial labs, office hours, tutorial center

Teaching Assistant: Basic Physics Lab II — **Winter 2005**
University of California, Irvine: Course 3LB — *Irvine, California*
3 experimental laboratory sections, grading, office hours

TA: Fundamentals of Experimental Physics — **Fall 2004**
University of California, Irvine: Course 52A — *Irvine, California*
3 experimental laboratory sections, grading, office hours

SELECTED HONORS AND AWARDS

NASA Postdoctoral Program (NPP) Fellowship **2009**

OUTREACH

University of California, Irvine **2008**
Participated in presentations to local elementary schools

PRESS RELEASES

Astronomers Pin Down Galaxy Collision Rates by Comparing Hubble Space Telescope Photographs to Supercomputer Simulations **Oct. 27, 2011**

Newly Discovered Galaxy Cluster In Early Stage Of Formation Is Farthest Away Ever Identified **Mar. 31, 2008**

TECHNICAL SKILLS

Operating Systems:
Proficient in: Windows, Linux, Mac OS X

Programming & **Software:**
Proficient in: IDL, TIPSY, GASOLINE (analysis)
Familiar with: Python, C++, Java, Mathematica, Android App Inventor, PKDGRAV, GASOLINE (code)

REFERENCES

James Bullock, Ph.D.
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Ariyeh Maller, Ph.D.
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New York City College of Technology
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PUBLICATIONS AND PRE-PRINTS

1. *Intrinsic Orientations of Galaxies in LCDM,* L. Moustakas, **K.R. Stewart**, **in prep.**, **2012**

2. *Angular Momentum Acquisition of Gaseous Halos,* **K.R. Stewart**, A. Brooks, J. Bullock, A. Maller, T. Kaufmann, J. Diemand, J. Wadsley, L. Moustakas, **in prep.**, **2012**

3. *The Assembly Histories of Galaxy Clusters and Protoclusters from $z = 0$ to $z = 1$,* J. Berrier, **K.R. Stewart**, J. Bullock, **in prep.**, **2012**

4. *GalMass: A Smartphone Application for Estimating Galaxy Masses,* **K.R. Stewart**, ArXiv:1109.3207, **2011**

5. *The Major and Minor Galaxy Merger Rates at $z < 1.5$,* J. Lotz, T. Cox, D. Croton, P. Jonsson, J. Primack, R. Somerville, **K.R. Stewart**, ApJ, 742, 103, **2011**

6. *Orbiting Circum-galactic Gas as a Signature of Cosmological Accretion,* **K.R. Stewart**, T. Kaufmann, J. Bullock, E. Barton, A. Maller, J. Diemand, J. Wadsley, ApJ, 738, 39, **2011**

7. *Observing the End of Cold Flow Accretion using Halo Absorption Systems,* **K.R. Stewart**, T. Kaufmann, J. Bullock, E. Barton, A. Maller, J. Diemand, J. Wadsley, ApJL, 735, 1, **2011**

8. *Mergers in ΛCDM: Uncertainties in Theoretical Predictions and Interpretations of the Merger Rate,* P. Hopkins, D. Croton, K. Bundy, S. Kochfar, F. van den Bosch, R. Somerville, A. Wetzel, D. Keres, L. Hernquist, **K.R. Stewart**, ApJ, 724, 915, **2010**

9. *Stealth Galaxies in the Halo of the Milky Way,* J.S. Bullock, **K.R. Stewart**, M. Kaplinghat, E.J. Tollerud, ApJ, 717, 1043, **2010**

10. **Mergers and Bulge Formation in ΛCDM: Which Mergers Matter?* P. Hopkins, K. Bundy, D. Croton, L. Hernquist, D. Keres, S. Kochfar, **K.R. Stewart**, A. Wetzel, and J. Younger, ApJ, 715, 202, **2010**

11. *Invisible Major Mergers: Why the Definition of a Galaxy "Merger Ratio" Matters,* **K.R. Stewart**, ASPC, 419, 243, **2009**

12. **Gas-rich Mergers in LCDM: Disk Survivability and the Baryonic Assembly of Galaxies,* **K.R. Stewart**, J.S. Bullock, R.H. Wechsler, and A.H. Maller, ApJ, 702, 307, **2009**

13. **The Effects of Gas on Morphological Transformation in Mergers: Implications for Bulge and Disk Demographics,* P.F. Hopkins, R.S. Somerville, T.J. Cox, L. Hernquist, S. Jogee, D. Keres, C.P. Ma, B. Robertson, and **K.R. Stewart**, MNRAS, 397, 802, **2009**

14. **Galaxy Mergers and Dark Matter Halo Mergers in LCDM: Mass, Redshift, and Mass-Ratio Dependence,* **K.R. Stewart**, J.S. Bullock, E.J. Barton, R.H. Wechsler, ApJ, 702, 1005, **2009**

15. *Mergers and Disk Survival in LCDM,* J.S. Bullock, **K.R. Stewart**, and C.W. Purcell, Invited Contribution, IAU Symposium 254, **2008**

16. *The Assembly of Galaxy Clusters,* J.C. Berrier, **K.R. Stewart**, C.W. Purcell, E.J. Barton, and R.H. Wechsler, ApJ, 690, 1292, **2008**

17. *A Candidate Brightest Proto-Cluster Galaxy at z = 3.03,* J. Cooke, E.J. Barton, J.S. Bullock, **K.R. Stewart**, and A.M. Wolfe, ApJ, 681, 57, **2008**

18. ***Merger Histories of Galaxy Halos and Implications for Disk Survival,* **K.R. Stewart**, J.S. Bullock, R.H. Wechsler, A.H. Maller, and A.R. Zentner, ApJ, 653, 597, **2008**

* : 50+ Citations	Total Citations: $\boldsymbol{N = 600}$	(Source: NASA ADS,
** : 100+ Citations	h-index: $\boldsymbol{h = 11}$	updated 6/7/2012)

SEMINARS AND COLLOQUIA

Orbiting Cool Halo Gas: Observing the End of Cold Mode Gas Accretion onto Galaxies, Astronomy Seminar, UC Riverside, Riverside, CA, May 2012

Observing the End of Cold Flows: Orbiting Circum-galactic Gas as a Signature of Cosmological Accretion, Jet Propulsion Laboratory Postdoc Series, JPL, Pasadena, CA, Jun. 2011

Orbiting Cool Gas in Galaxy Halos: Observing the End of Cold Flow Accretion, JPL Lunch Talk, Jet Propulsion Laboratory, Pasadena, CA, May 2011

Observing the End of Cold Flows: Orbiting Circum-galactic Gas as a Signature of Cosmological Accretion, Astrophysics Lunch Talk, UC San Diego, San Diego, CA, May 2011

Observing the End of Cold Flows: Orbiting Circum-galactic Gas as a Signature of Cosmological Accretion, Carnegie Observatories Lunch Talk, Carnegie Observatories, Pasadena, CA, Apr. 2011

Observing the End of Cold Flow Accretion: Co-rotation of Cool Halo Gas as a Signature of Cosmological Gas Accretion, Lunch Talk, Institute for Astronomy, Honolulu, Feb. 2011

Merger Histories of Dark Matter Halos in LCDM and Implications for the Evolution of Milky Way-size Galaxies, Astrophysics Luncheon Seminar, JPL, Pasadena, Jan. 2010

Merger Histories of LCDM Galaxies: Disk Survivability and the Deposition of Cold Gas via Mergers, Kavli Institute for Cosmological Physics, Open Group Seminar, The University of Chicago, Chicago, IL, Nov. 2008.

Merger Histories of LCDM Galaxies: Disk Survivability and the Deposition of Cold Gas via Mergers, Center for Cosmology and AstroParticle Physics Seminar, the Ohio State University, Columbus, OH, Oct. 2008.

Merger Histories of LCDM Galaxies: Disk Survivability and the Deposition of Cold Gas via Mergers, Berkeley Cosmology Group Seminar, UC Berkeley, Berkeley, CA, Sept. 2008.

Merger Histories of LCDM Galaxies: Disk Survivability and the Deposition of Cold Gas via Mergers, KIPAC tea talk, Kavli Institute for Particle Astrophysics and Cosmology, Stanford University, Palo Alto, CA, Aug. 2008.

CONTRIBUTED CONFERENCE TALKS (OR POSTERS)

Angular Momentum Acquisition in Galaxies and Galaxy Halos, The Baryon Cycle, Center for Galaxy Evolution, UC Irvine, Irvine, CA, Jun. 2012 (scheduled)

Orbiting Cool Halo Gas: Observing the End of Cold Mode Gas Accretion onto Galaxies, JPL Postdoc Research Day Poster Session, JPL, Pasadena, CA, Sep. 2011 (Poster)

Observing the End of Cold Flows: Orbiting Circum-galactic Gas as a Signature of Cosmological Accretion, Galaxy Formation Workshop, UC Santa Cruz, CA, Aug. 2011

Observing the End of Cold Flow Accretion: Co-rotation of Cool Halo Gas as a Signature of Cosmological Gas Accretion , The Cosmic Odyssey of Baryons: Accreting, Outflowing and Hiding, Laboratoire d'Astrophysique de Marseille, Marseille, France, Jul. 2011

Rotating Circumgalactic Gas as a Signature of Cosmological Gas Accretion, JPL Postdoc Research Day Poster Session, JPL, CA, Aug. 2010 (Poster)

Co-rotation of Cold, Accreted Halo Gas in LCDM, Galaxy Formation Workshop, UC Santa Cruz, CA, Aug. 2010.

Cloud Formation in a Cosmological Context and Implications for Absorption-Selected Galaxies, Hunting for the Dark: the Hidden Side of Galaxy Formation, Malta, Oct. 2009 (Poster)

Cool Halo Gas in a Cosmological Context, Galaxy Formation Workshop, UC Santa Cruz, Aug. 2009.

Merger Histories of LCDM Galaxies: Disk Survivability and the Deposition of Cold Gas via Mergers, 213th AAS Meeting, Long Beach, CA, Jan. 2009.

Merger Histories of LCDM Galaxies: Gas Fractions and Disk Survivability, 8th Annual Theoretical Astrophysics in Southern California Meeting, UC Irvine, Oct. 2008.

Galaxy Merger Fractions and Disk Survivability, Back to the Galaxy II (Scientific Hightlights Section), UC Santa Barbara, Oct. 2008.

Merger Histories of DM Halos and the Baryonic Assembly of Galaxies, Galaxy Formation Workshop, UC Santa Cruz, Aug. 2008.

Merger Histories of Galaxy Halos, and Implications for Disk Survival, Galactic Structure and Structure of Galaxies Workshop, Ensenada, Baja California, Mexico, Mar. 2008 (Poster)

Merger Histories of Galaxy-sized Dark Matter Halos, and Implications for Disk Survival, 7th Annual Theoretical Astrophysics in Southern California Meeting, UCLA, Nov. 2007

Merger Histories of Galaxy-sized Dark Matter Halos, Galaxy Formation Workshop, UC Santa Cruz, Aug. 2007