

Joseph Lorenzo Hall*

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Education

- 2008 **Ph.D.**, School of Information; University of California, Berkeley
- 2005 **M.I.M.S.**, School of Information; University of California, Berkeley
- 2003 **M.A.**, Astrophysics; University of California, Berkeley
- 2000 **B.S.**, Physics and Astronomy; Northern Arizona University

Supplementary Education

- *Fall 2003–Fall 2006* — Samuelson Law, Technology and Public Policy Clinic, Boalt Hall School of Law (University of California, Berkeley)
- *Summer 2003* — Internet Law Program, The Stanford Center for Internet and Society at Stanford Law School (Stanford Law School and Harvard Law School)
- *Summer 2000* — Summer Session Program, International Space University, Summer Session Program (Universidad Técnica Federico Santa María (Valparaiso, Chile))

Experience

Research Experience

- *September 2008–Present* — ACCURATE Postdoctoral Research Associate, University of California, Berkeley and Princeton University.
Description: Postdoctoral research on governmental and electoral transparency
Supervisor: Deirdre K. Mulligan and Edward W. Felten; UC Berkeley School of Information and Princeton Center for Information Technology Policy

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- *Spring 2005–Spring 2008* — Graduate Student Researcher, University of California, Berkeley.
Description: Election law and policy research with ACCURATE NSF center
Supervisor: Deirdre K. Mulligan; Boalt Hall School of Law
- *Summer 2004* — Graduate Student Researcher, University of California, Berkeley.
Description: Information consumption research
Supervisor: Peter Lyman; School of Information Management and Systems
- *September 2002–Fall 2003* — Graduate Student Researcher, University of California, Berkeley.
Description: Spectroscopic binary Brown Dwarf research
Supervisor: Gibor Basri; Department of Astronomy
- *May 2002–September 2002* — Graduate Student Researcher, University of California, Berkeley.
Description: Developed spectroscopic labeling tool
Supervisor: James Graham; Department of Astronomy
- *September 2001–May 2002* — Research Assistant, University of California, Berkeley.
Description: Further Titan particulate research
Supervisor: Caitlin A. Griffith; Department of Astronomy
- *May 2000–September 2001* — Research Technician, Northern Arizona University.
Description: Investigated particulates in Titan’s atmosphere
Supervisor: Caitlin A. Griffith; Physics and Astronomy Department
- *September 1997–May 2000* — Research Assistant, Northern Arizona University.
Description: Investigated clouds in the atmosphere of Titan
Supervisor: Caitlin A. Griffith; Physics and Astronomy Department

Teaching Experience

- *Fall 2005* — Teaching Assistant
Course: InfoSys 296A-2 — Open Source Development and Distribution of Digital Information: Economic, Legal and Social Perspectives
Instructors: Pamela Samuelson, Steven Weber, Mitchell Kapor; University of California, Berkeley
- *Spring 2005* — Teaching Assistant
Course: InfoSys 296A-2 — Peer-to-Peer (P2P) Technology: Legal and Policy Challenges
Instructor: Pamela Samuelson; University of California, Berkeley
- *Spring 2004* — Head Graduate Student Instructor
Course: Astro 10 — Introduction to General Astronomy
Instructor: Steven Stahler; University of California, Berkeley
- *Fall 2003* — Graduate Student Instructor
Course: Astro 10 — Introduction to General Astronomy
Instructor: Gibor Basri; University of California, Berkeley

- *Fall 2002* — Graduate Student Instructor
Course: Astro 10 — Introduction to General Astronomy
Instructor: Alexei Filippenko; University of California, Berkeley
- *Spring 2002* — Graduate Student Instructor
Course: Astro 12 — The Planets
Instructors: Imke de Pater, Raymond Jeanloz; University of California, Berkeley
- *Fall 2002* — Graduate Student Instructor
Course: Astro 10 — Introduction to General Astronomy
Instructor: Alexei Filippenko; University of California, Berkeley
- *Spring 1997* — Academic Tutor
Course: Math — Calculus I, II and III
Instructor: North Learning Assistance Center; Northern Arizona University

Awards and Honors

- *Fall 2003* — Wiche Fellowship, School of Information Management and Systems; University of California, Berkeley
- *Spring 2003* — Berkeley Graduate Opportunity Fellowship, School of Information Management and Systems; University of California, Berkeley
- *Spring 2002* — Alliance For Graduate Education and The Professoriate Supplementation Fellowship; University of California, Berkeley
- *2001-2004* — Berkeley Edge Academic Fellowship; University of California, Berkeley
- *2001-2002* — Honorable Mention, Ford Foundation Predoctoral Fellowship For Minorities; The Ford Foundation
- *2000* — Physics and Astronomy Department Senior Bedwell Scholar; Northern Arizona University
- *2000* — Outstanding Student of Physics and Astronomy; Northern Arizona University
- *2000* — Henry Hooper Undergraduate Research Grant; Northern Arizona University
- *1998-1999* — Physics and Astronomy Department Chair's Scholar; Northern Arizona University
- *1999* — Physics and Astronomy Department Vesto M. Slipher Scholar; Northern Arizona University

Extracurricular Activity

- *2010* — Program Chair, Open Government: Defining, Designing and Sustaining Transparency¹

¹See: <http://citp.princeton.edu/open-government-workshop/>

- 2010 — Program Committee, The 2010 Electronic Voting Technology Workshop/Workshop on Trustworthy Elections (EVT/WOTE '10)²
- 2010 — Program Committee Member, The Fifth Annual iSchools Conference 2009 (iConference '09)³
- 2009 — Program Chair, The 2009 Electronic Voting Technology Workshop/Workshop on Trustworthy Elections (EVT/WOTE '09)⁴
- 2009 — Organizing Committee Member, The 2009 Election Verification Network (EVN) Conference
- 2008-Present — Coordinating Committee Member, Election Verification Network
- 2008-Present — Member, Board of Directors, California Voter Foundation⁵
- 2008 — Program Committee Member, The 2008 USENIX/ACCURATE Electronic Voting Technology Workshop (EVT '08)⁶
- 2007 — Academic Review Team Member, Ohio Secretary of State; Evaluation and Validation of Election-Related Equipment, Standards and Testing (EVEREST)⁷
- 2007 — Academic Review Team Member, California Secretary of State; Top-To-Bottom Review (TTBR) of Voting Systems⁸
- 2007 — Graduate Student Representative, Committee on Computing and Communications (COMP), UC Berkeley Academic Senate⁹
- 2007 — Program Committee Member, IAVoSS Workshop On Trustworthy Elections (WOTE 2007)¹⁰
- Spring 2006-Present — Member, National Committee for Voting Integrity¹¹
- 2005 — Graduate Student Representative, Berkeley Information Technology Review Committee¹²
- Fall 2004-Present — Member, Verified Voting Foundation Advisory Board¹³
- Fall 2004-Fall 2005 — Graduate Student Representative, eBerkeley Steering Committee¹⁴
- 2002-2005 — Graduate Student Representative, KALX Radio Policy Advisory Board

²See: <http://www.usenix.org/events/ewtwote10/cfp/>

³See: <http://www.ischools.org/iConference10/participation/>

⁴See: <http://www.usenix.org/events/ewtwote09/cfp/>

⁵See: <http://www.calvoter.org/>

⁶See: <http://www.usenix.org/event/ewt08/>

⁷See: <http://www.sos.state.oh.us/SOS/upload/everest/14-AcademicFinalEVERESTReport.pdf>

⁸See: http://www.sos.ca.gov/elections/elections_vsr.htm

⁹See: <http://academic-senate.berkeley.edu/committees/comp.html>

¹⁰See: <http://research.microsoft.com/conferences/WOTE2007/>

¹¹See: <http://votingintegrity.org/>

¹²See: http://josephhall.org/papers/BITRC-Final_Report_1-18-06.pdf

¹³See: <http://www.verifiedvoting.org/>

¹⁴See: <http://ebsc.berkeley.edu/>

- 2000–Present — Member, Sigma Delta Pi, National Collegiate Spanish Honor Society
- 2002–2004 — Graduate Student Representative, Educational Technology Committee (eBerkeley)
- 2003 — Parliamentarian and Delegate, Graduate Assembly (GA) of the University of California, Berkeley
- 2003 — Chair, GA Organization and Rules Committee
- 2003 — Organization and Rules Representative, GA Executive Committee

Publications

Peer-Reviewed Publications

- Joseph Lorenzo Hall, Luke W. Miratrix, Philip B. Stark, Melvin Briones, Elaine Ginnold, Freddie Oakley, Martin Peaden, Gail Pellerin, Tom Stanionis and Tricia Webber, Implementing Risk-Limiting Post-Election Audits in California in *The 2009 USENIX/ACCURATE/IAVoSS Electronic Voting Technology Workshop/Workshop on Trustworthy Elections (EVT/WOTE'09)* (2009). *available at:*
http://josephhall.org/papers/r1a_evt09.pdf.
- Joseph Lorenzo Hall, *Policy Mechanisms for Increasing Transparency in Electronic Voting*; A dissertation submitted to the Graduate Division of the University of California at Berkeley in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Information Management and Systems (2008). *available at:*
<http://josephhall.org/papers/jhall-phd.pdf>.
- Joseph Lorenzo Hall, Improving the Security, Transparency and Efficiency of California's 1% Manual Tally Procedures in *The 2008 USENIX/ACCURATE Electronic Voting Technology Workshop (EVT'08)* (2008). *available at:*
http://josephhall.org/papers/jhall_evt08.pdf.
- Lawrence Norden, Aaron Burstein, Joseph Lorenzo Hall and Margaret Chen, *Post-Election Audits: Restoring Trust In Elections*; Brennan Center for Justice at New York University School of Law and the Samuelson Law, Technology & Public Policy Clinic at the University of California, Berkeley School of Law (Boalt Hall) (2007). *available at:*
http://www.josephhall.org/papers/bcsc_audit_review.pdf.
- Joseph Lorenzo Hall, Contractual Barriers to Transparency in Electronic Voting in *The 2007 USENIX/ACCURATE Electronic Voting Technology Workshop (EVT'07)* (2007). *available at:*
http://josephhall.org/papers/jhall_evt07.pdf.
- Joseph Lorenzo Hall, Transparency and Access to Source Code in E-Voting in *The 2006 USENIX/ACCURATE Electronic Voting Technology Workshop (EVT'06)* (2006). *available at:*
http://josephhall.org/papers/jhall_evt06.pdf.
- Lillie Coney, Joseph Lorenzo Hall, Poorvi L. Vora and David W. Wagner, Towards a Privacy Measurement Criterion for Voting Systems in *National Conference on Digital Government*

Research (2005). available at:
http://josephhall.org/papers/poster_VotingPrivacy.pdf.

- Arthur M. Keller, Alan Dechert, Karl Auerbach, David Mertz, Amy Pearl, and Joseph Lorenzo Hall, A PC-Based Open-Source Voting Machine with an Accessible Voter-Verifiable Paper Ballot in *USENIX '05, FREENIX track* (2005). available at:
<http://josephhall.org/papers/electronic-voting-machine.pdf>.
- Arthur M, Keller, David Mertz, Joseph Lorenzo Hall, and Arnold Urken, Privacy Issues in an Electronic Voting Machine in *ACM Workshop on Privacy in the Electronic Society* (2004). available at:
<http://josephhall.org/papers/privacy-electronic-voting-WPES-2004.pdf>.
- Joseph Lorenzo Hall, Columbia and Challenger: Organizational Failure at NASA, *Space Policy*, 4:19, 239-247 (2003). available at:
<http://josephhall.org/papers/nasa.pdf>.
- Caitlin A. Griffith, Joseph Lorenzo Hall, and Thomas R. Geballe, Detection of Daily Clouds on Titan, *Science*, 5491:290, 509-513 (2000). available at:
http://josephhall.org/Science_290_509.pdf.

Unreviewed Publications

- Joseph Lorenzo Hall, Philip B. Stark, Henry E. Brady and Jasjeet S. Sekhon, *Comments on the CA SoS Precinct Level Data Pilot Project*; Submitted to the California Secretary of State (2009). available at:
<http://josephhall.org/papers/county-data-comments-final.pdf>.
- Aaron Burstein and Joseph Lorenzo Hall, *Public Comment on the Voluntary Voting System Guidelines, Version 1.1*; Submitted to the Election Assistance Commission on behalf of ACCURATE (2009). available at:
http://josephhall.org/papers/accurate_vvsgv11_comment.pdf.
- Aaron Burstein and Joseph Lorenzo Hall, *Public Comment on the Voluntary Voting System Guidelines, Version II (First Round)*; Submitted to the Election Assistance Commission on behalf of ACCURATE by the Samuelson Law, Technology and Public Policy Clinic (2008). available at:
http://josephhall.org/papers/accurate_vvsg2_comment_final.pdf.
- Aaron Burstein, Joseph Lorenzo Hall, Deirdre Mulligan and David Wagner, *Comment on the U.S. Election Assistance Commission's Request for Information Regarding Voting Systems Risk Assessment Support*; Submitted to the Election Assistance Commission by the Samuelson Law, Technology and Public Policy Clinic (2008). available at:
<http://josephhall.org/papers/ucb-eacrificomment-20080428.pdf>.
- Joseph Lorenzo Hall, Commentary: Statistical Solutions to Election Mysteries, *Chance*, 2:21, 24-25 (2008). available at:
http://josephhall.org/papers/ash-lamperti_chance-2008.pdf.
- Patrick McDaniel, Matt Blaze, Giovanni Vigna, Kevin Butler, William Enck, Harri Hursti, Steve McLaughlin, Patrick Traynor, Adam Aviv, Pavol Cerny, Sandy Clark, Eric Cronin,

- Gaurav Shah, Micah Sherr, Richard Kemmerer, Davide Balzarotti, Greg Banks, Marco Cova, Viktoria Felmetzger, William Robertson, Fredrik Valeur, Joseph Lorenzo Hall and Laura Quilter, *EVEREST: Evaluation and Validation of Election-Related Equipment, Standards and Testing (Academic Final Report)*; Ohio Secretary of State (2007). *available at:* http://www.josephhall.org/papers/Academic_EVEREST_Report.pdf.
- Joseph Lorenzo Hall and Laura Quilter, *Documentation Review of The Hart Intercivic System 6.2.1 Voting System*; University of California for the California Secretary of State's Top-To-Bottom Review of Voting Systems (2007). *available at:* http://www.josephhall.org/papers/hart_doc_final.pdf.
 - Aaron Burstein and Joseph Lorenzo Hall, *Unlike Ballots, EAC Shouldn't Be Secretive*, *Roll Call*, 22:Jan, (2007). *available at:* http://josephhall.org/papers/Burstein_Hall-Roll_Call_2007-01-26.pdf.
 - Aaron Burstein, Joseph Lorenzo Hall, Deirdre Mulligan, *Public Comment on the Manual for Voting System Testing & Certification Program*; Submitted to the Election Assistance Commission on behalf of ACCURATE and listed affiliates by the Samuelson Law, Technology and Public Policy Clinic (2006). *available at:* http://josephhall.org/papers/ACCURATE_VSTCP_comment.pdf.
 - Deirdre K. Mulligan, Aaron Burstein, Joseph Lorenzo Hall and David Snyder, *Counting on Security*, *Sacramento Bee*, 5:Nov, (2006). *available at:* http://josephhall.org/papers/Counting_on_security-sacbee.pdf.
 - Joseph Lorenzo Hall, *Design and the Support of Transparency in VVPAT Systems in the US Voting Systems Market*; Unpublished (2006). *available at:* http://josephhall.org/papers/jhall_vvpat-design-transparency.pdf.
 - Erica Brand, Cecilia Walsh, Joseph Lorenzo Hall and Deirdre K. Mulligan, *Public Comment on the 2005 Voluntary Voting System Guidelines*; Submitted to the Election Assistance Commission on behalf of ACCURATE and listed affiliates by the Samuelson Law, Technology and Public Policy Clinic (2005). *available at:* http://josephhall.org/papers/2005_vvsg_comment.pdf.
 - Deirdre K. Mulligan and Joseph Lorenzo Hall, *Preliminary Analysis Of E-Voting Problems Highlights Need For Heightened Standards And Testing*; National Research Council's Committee on Electronic Voting (2004). *available at:* http://josephhall.org/papers/NRC-CSTB_mulligan-hall_200412.pdf.
 - Joseph Lorenzo Hall, *Electronic Voting Machine Information Sheets*; Electronic Frontier Foundation / Election Protection Coalition (2004). *available at:* <http://w2.eff.org/Activism/E-voting/protection.php>.
 - Arthur M. Keller, David Mertz, Joseph Lorenzo Hall, and Arnold Urken, *Privacy Issues in an Electronic Voting Machine in Privacy and Technologies of Identity: A Cross-Disciplinary Conversation*, Katherine J. Strandburg and Daniela Stan Raicu (eds.), Springer Science+Business Media: New York, New York (2006). *available at:* <http://josephhall.org/papers/privacy-electronic-voting-chapter.pdf>.

- Caitlin A. Griffith, Joseph Lorenzo Hall, Eliot F. Young, Jason Cook and Pascal Rannou, Particles on Titan from the Stratopause to the Troposphere in *American Astronomical Society, Division of Planetary Science Meeting*, **33** (2001).
- Ray A. Williamson, Joseph Lorenzo Hall et al. EL NIÑO AND THE SOUTHERN OSCILLATION: A GLOBAL CHALLENGE, KEYS TO A SOLUTION. Fermín Pastén Pastén; Valparaíso, Chile (2000).
- Caitlin A. Griffith, Joseph Lorenzo Hall, Thomas R. Geballe, Weather on Titan in *American Astronomical Society, Division of Planetary Science Meeting*, **32** (2000).
- Caitlin A. Griffith and Mark S. Marley, (eds.), FROM GIANT PLANETS TO COOL STARS, ASP CONFERENCE SERIES. Astronomical Society of the Pacific; San Francisco, CA (2000).

Presentations and Testimony

- *Panel*: “Defining Transparency”, Joseph Lorenzo Hall (*chair*), Patrice McDermott, Helen Nissenbaum, J.H. Snider, Jonathan Weinberg, *Open Government: Defining, Designing, and Sustaining Transparency*; Princeton University Center for Information Technology Policy (2010).
- Joseph Lorenzo Hall, “Implementing Risk-Limiting Audits in California”, *Princeton Research Symposium 2009*; Princeton University (2009). *available at*: http://josephhall.org/papers/jhall_prs2009.pdf
- *Panel*: “The Future of Voting Technology: Towards ‘Critical Democracy Infrastructure?’”, Gregory Miller (*chair*), Hon. Debra Bowen, Aaron Burstein, Joseph Lorenzo Hall, Norman Ornstein, *Politics Online Conference (POLC)*; (2009).
- *Panel*: “Vendor and Market Issues in Voting Systems”, Joseph Lorenzo Hall (*chair*), Douglas Kellner, Bo Lipari, Larry Moore, John Sebes, *Election Verification Network (EVN) Conference*; (2009).
- *Panel*: “A Medley of Technologies for Facilitating Collaboration”, Joseph Lorenzo Hall (*co-chair*), John McCarthy (*co-chair*), Susan Dzieduszycka-Suinat, Whitney Quesenbery, Eric Rescorla, Hon. Mark Ritchie, *Election Verification Network (EVN) Conference*; (2009).
- Joseph Lorenzo Hall, “After the Election: Audits and Recounts”, *Carter Center 2008 US Presidential Election Study Mission*; American University (2008). *available at*: http://josephhall.org/papers/jhall_carter_center-112008.pdf
- *Panel*: “The Devolution of Voting Technology: From Pen and Paper to Touch Screens and Back Again?”, John C. Keeney, Jr. (*chair*), Joseph Lorenzo Hall, Jacquelynne Harris, S. Candice Hoke, *American Bar Association Annual Meeting*; (2008).
- *Panel*: “How Can Researchers and Election Officials Better Work Together?”, Joseph Lorenzo Hall (*chair*), Jeremy Epstein, Elaine Ginnold, Greg Luke, David Wagner, Steve Weir, *The 2008 USENIX/ACCURATE Electronic Voting Technology Workshop*; (2008).
- *Panel*: “The Evolution of Voting Technology: From Paper Ballots to Touch Screens and Back Again?”, John C. Keeney, Jr., Esq. (*chair*), Charles H. Bell, Jr., Esq., Joseph Lorenzo Hall, Dean C. Logan, Deirdre K. Mulligan, Esq., Freddie Oakley, *ABA Midyear Meeting*; American Bar Association (2008).

- *Panel*: “Transparency in Post Election Audits”, Lawrence Norden (*chair*), Arlene Ash, Joseph Lorenzo Hall, Ron Rivest, Howard Stanislevic, *Post Election Audit Summit*; American Statistical Association/Verified Voting Foundation/NYU Brennan Center for Justice/Common Cause/Citizens for Election Integrity Minnesota/The Florida Voters Coalition (2007).
- Joseph Lorenzo Hall, “A Quick Review of Post-Election Audit Models”, *Post-Election Audit Standards (PEAS) Working Group*; California Secretary of State (2007). *available at*: <http://josephhall.org/papers/20070702-PEAS-jhall.pdf>
- *Panel*: “Excellence in Election Verification”, Tova Wang (*chair*), Toby Moore, Joseph Lorenzo Hall, Ion Sancho, *2nd Annual Election Verification Network Conference*; EVN/Quixote Foundation (2007).
- Joseph Lorenzo Hall, “Standards for e-Voting: The Work of the Election & Voter Services Technical Committee”, *OASIS Symposium*; OASIS (2007). *available at*: http://josephhall.org/papers/OS2007-EVS_TC.pdf
- Joseph Lorenzo Hall, “Election Technology and Problems in the Field”, *Election Protection Coalition 2006 Technology Field Attorney Training*; Fenwick & West LLP; Morrison & Forrester LLP (2006). *available at*: http://josephhall.org/papers/EPC_2006_techproblems.pdf
- Joseph Lorenzo Hall, “Barriers to Tor Research at UC Berkeley”, *Exploring the Privacy Implications of Trustworthy Information Systems Workshop for TRUST Researchers*; NSF TRUST Center (UC Berkeley) (2006). *available at*: <http://josephhall.org/papers/torpaper.pdf>
- Joseph Lorenzo Hall, “Background on Recent Diebold Election Systems, Inc. (DESI) Vulnerabilities”, *NCVI Briefing for Congressmembers and Staff*; United States Congress (2006). *available at*: http://josephhall.org/papers/DESI_vulns_background_briefing-20060607.pdf
- Joseph Lorenzo Hall, “Electronic Voting Tutorial: An Update on HAVA Implementation and an Introduction to Types of Voting Systems”, *Computers, Freedom and Privacy 2006*; Association for Computing Machinery (2006). *available at*: http://josephhall.org/papers/jhall_cfp2006-20060502.pdf
- Joseph Lorenzo Hall, Deirdre K. Mulligan, “Prepared Statement Of A Center for Correct, Usable, Reliable, Auditable, Transparent Elections (ACCURATE): Open Source Software – Does It Have A Place In California’s Electoral System?”, *Elections, Reapportionment & Constitutional Amendments Committee*; California Senate (2006). *available at*: http://josephhall.org/papers/JHall_DMulligan_testimony_CASenate-20060208.pdf
- Yuri Taktheyev, Joseph Lorenzo Hall, “Blogging Together: Digital Expression in a Real-Life Academic Community”, *Social Software in the Academy Workshop*; University of Southern California (2005).
- *Panel*: “Blogging in the Classroom: Successes, Failures and New Frontiers”, Joseph Lorenzo Hall (*chair*), Barbara Ganley, Kathleen Fitzpatrick, Nicole Ellison, *Social Software in the Academy Workshop*; University of Southern California (2005).