

Curriculum Vitae

Seth A. Jacobson

Work contact information:

Northwestern University
Dept. Earth and Planetary Sciences
2145 Sheridan Road
Technological Institute, F293/294
Evanston, IL 60208-3130
USA

+1 (847) 491-3459

sethajacobson@earth.northwestern.edu

EDUCATION

- 2012 Ph.D. in Astrophysical and Planetary Sciences, University of Colorado at Boulder
Dissertation: “Role of non-gravitational effects on the evolution of small bodies in the solar system” (defended October 29, 2012).
- 2010 M.S. in Astrophysical and Planetary Sciences, University of Colorado at Boulder
- 2008 B.S. in Applied and Engineering Physics, Cornell University

PROFESSIONAL APPOINTMENT

- 2017– **Assistant Professor**, Department of Earth and Planetary Sciences, Northwestern University, Evanston, Illinois, USA

FELLOWSHIPS, AWARDS & HONORS

- 2017 Ronald Greeley Early Career Award in Planetary Science from the AGU
- 2014 Asteroid 8618 (1981 DX) named Sethjacobson at Asteroids, Comets, Meteors 2014, Helsinki, Finland
- 2010–2012 NASA Earth and Space Science Fellowship
- 2011–2012 National Optical Astronomy Observatory (NOAO) Thesis Support Award
- 2010 Astrophysical and Planetary Science Department Fellowship
- 2007 Cornell Engineering Learning Initiative Student Independent Research Grant
- 2006 NSF Research Experience for Undergraduates Fellowship

PUBLICATIONS

Refereed journal articles

- 2017 20. “Formation, stratification and mixing of the cores of Earth and Venus.” *Earth and Planetary Science Letters* 474, 375–386 (2017) doi: 10.1016/j.epsl.2017.06.023
ADS: 2017E&PSL.474..375J
S. A. Jacobson, J. Hernlund, D. Rubie, A. Morbidelli, M. Nakajima
19. “A Martian origin for the Mars Trojan asteroids.” *Nature Astronomy* 1, 179, 1–6 (2017) doi: 10.1038/s41550-017-0179 ADS: 2017NatAs...1E.179P
D. Polishook, S. A. Jacobson, O. Aharonson & A. Morbidelli

- 2016 18. “Highly siderophile elements were stripped from Earth’s mantle by iron sulfide segregation.” *Science* 353, 6304, 1141–1144 (2016) doi: 10.1126/science.aaf6919
ADS: 2016Sci...353.1141R
D. C. Rubie, V. Laurenz, **S. A. Jacobson**, A. Morbidelli, H. Palme, A. K. Vogel, D. J. Frost
17. “Impact-induced melting during accretion of the Earth.” *Progress in Earth and Planetary Science* 3, 7, 1–11 (2016) doi: 10.1186/s40645-016-0083-8
ADS: 2016PEPS....3....7D
J. de Vries, F. Nimmo, H. J. Melosh, **S. A. Jacobson**, A. Morbidelli & D. C. Rubie
16. “Matching asteroid population characteristics with a model constructed from the YORP-induced rotational fission hypothesis.” *Icarus* 277, 381–394 (2016)
doi: 10.1016/j.icarus.2016.05.032 ADS: 2016Icar..277..381J
S. A. Jacobson, F. Marzari, A. Rossi & D. J. Scheeres
15. “Did Jupiter’s core form in the innermost parts of the Sun’s protoplanetary disk?” *Monthly Notices of the Royal Astronomical Society* 458, 3, 2962–2972 (2016)
doi: 10.1093/mnras/stw431 ADS: 2016MNRAS.458.2962R
S. N. Raymond, A. Izidoro, B. Bitsch, **S. A. Jacobson**
14. “Fossilized condensation lines in the Solar System protoplanetary disk.” *Icarus* 267, 368–376 (2016) doi: 10.1016/j.icarus.2015.11.027 ADS: 2016Icar..267..368M
A. Morbidelli, B. Bitsch, A. Crida, M. Gounelle, T. Guillot, **S. A. Jacobson**, A. Johansen, M. Lambrechts & E. Lega
13. “Oxygen isotopic evidence for vigorous mixing during the Moon-forming giant impact.” *Science* 351, 6272, 493–496 (2016) ADS: 2016Sci...351..493Y
doi: 10.1126/science.aad0525
E. D. Young, I. E. Kohl, P. H. Warren, D. C. Rubie, **S. A. Jacobson** & A. Morbidelli
12. “The formation of striae within cometary dust tails by a sublimation-driven, YORP-like effect.” *Icarus* 264, 160–171 (2016) doi: 10.1016/j.icarus.2015.09.021
ADS: 2016Icar..264..160S
J. K. Steckloff & **S. A. Jacobson**
- 2015 11. “The great dichotomy of the Solar System: small terrestrial embryos and massive giant planet cores.” *Icarus* 258, 418–429 (2015) doi: 10.1016/j.icarus.2015.06.003
ADS: 2015Icar..258..418M
A. Morbidelli, M. Lambrechts, **S. A. Jacobson** & B. Bitsch
10. “Accretion and differentiation of the terrestrial planets with implications for the compositions of early-formed Solar System bodies and accretion of water.” *Icarus* 248, 89–108 (2015) doi: 10.1016/j.icarus.2014.10.015 ADS: 2015Icar..248...89R
D. C. Rubie, **S. A. Jacobson**, A. Morbidelli, D. P. O’Brien, E. D. Young, J. de Vries, F. Nimmo, H. Palme & D. J. Frost

9. “The binary near-Earth asteroid 175706 (1996 FG₃)—an observational constraint on its orbital evolution.” *Icarus* 245, 56–63 (2015)
doi: 10.1016/j.icarus.2014.09.023 ADS: 2015Icar..245...56S
P. Scheirich, P. Pravec, **S. A. Jacobson**, J. Ďurech, P. Kušnirák, K. Hornoch, S. Mottola, M. Mommert, S. Hellmich, D. Pray, D. Polishook, Yu. N. Krugly, R. Ya. Inasaridze, O. I. Kvaratskhelia, V. Ayvazian, I. Slyusarev, J. Pittichová, E. Jehin, J. Manfroid, M. Gillon, A. Galád, J. Pollock, J. Licandro, V. Alí-Lagoa, J. Brinsfeld, & I. E. Molotov
- 2014 8. “Post-main-sequence debris from rotation-induced YORP break-up of small bodies.” *Monthly Notices of the Royal Astronomical Society* 445, 3, 2794–2799 (2014) doi: 10.1093/mnras/stu1926 ADS: 2014MNRAS.445.2794V
D. Veras, **S. A. Jacobson** & B. T. Gänsicke
7. “Lunar and terrestrial planet formation in the Grand Tack scenario.” *Philosophical Transactions of the Royal Society A* 372, 174, 1–26 (2014)
doi: 10.1098/rsta.2013.0174 ADS: 2014RSPTA.37230174J
S. A. Jacobson & A. Morbidelli
6. “Highly siderophile elements in Earth’s mantle as a clock for the Moon-forming impact.” *Nature* 508, 7494, 84–87 (2014) doi: 10.1038/nature13172
ADS: 2014Natur.508...84J
S. A. Jacobson, A. Morbidelli, S. N. Raymond, D. P. O’Brien, K. J. Walsh & D. C. Rubie
5. “Effect of rotational disruption on the size-frequency distribution of the Main Belt asteroid population.” *Monthly Notices of the Royal Astronomical Society: Letters* 439, 1, L95–L99 (2014) doi: 10.1093/mnras/slu006 ADS: 2014MNRAS.439L..95J
S. A. Jacobson, F. Marzari, A. Rossi, D. J. Scheeres & D. R. Davis
4. “Formation of the wide asynchronous binary asteroid population.” *The Astrophysical Journal* 780, 1, 60, 1–21 (2014) doi: 10.1088/0004-637X/780/1/60
ADS: 2014ApJ...780...60J
S. A. Jacobson, D. J. Scheeres & J. McMahon
- 2011 3. “Long-term stable equilibria for synchronous binary asteroids.” *The Astrophysical Journal Letters* 736, 1, L19, 1–5 (2011) doi: 10.1088/2041-8205/736/1/L19
ADS: 2011ApJ...736L..19J
S. A. Jacobson & D. J. Scheeres
2. “Dynamics of rotationally fissioned asteroids: source of observed small asteroid systems.” *Icarus* 214, 1, 161–178 (2011) doi: 10.1016/j.icarus.2011.04.009
ADS: 2011Icar..214..161J
S. A. Jacobson & D. J. Scheeres
- 2010 1. “Formation of asteroid pairs by rotational fission.” *Nature* 466, 7310, 1085–1088 (2010) doi: 10.1038/nature09315 ADS: 2010Natur.466.1085P
Pravec, P., D. Vokrouhlický, D. Polishook, D. J. Scheeres, A. W. Harris, A. Galád, O. Vaduvescu, F. Pozo, A. Barr, P. Longa, F. Vachier, F. Colas, D. P. Pray, J. Pollock, D. Reichart, K. Ivarsen, J. Haislip, A. Lacluyze, P. Kušnirák, T. Henych, F. Marchis, B. Macomber, **S. A. Jacobson**, Yu. N. Krugly, A. V. Sergeev & A. Leroy

Refereed book chapters

- 2016 4. “Mechanisms and geochemical models of core formation.” *Deep Earth: Physics and Chemistry of the Lower Mantle and Core* (Eds. H. Terasaki & R. Fischer) AGU/John Wiley & Sons, Inc., Geophysical Monograph Series 217, 181–190 (2016) doi: 10.1002/9781118992487.ch14 ADS: 2016GMS...217..191R
D. C. Rubie & **S. A. Jacobson**
- 2015 3. “Asteroid systems: binaries, triples, and pairs.” *Asteroids IV* (Eds. P. Michel, F. E. DeMeo & W. F. Bottke) University of Arizona Press, Space Science Series, 355–374 (2015) doi: 10.2458/azu_uapress_9780816532131-ch019
ADS: 2015aste.book..355M
J.-L. Margot, P. Pravec, P. A. Taylor, B. Carry & **S. A. Jacobson**
2. “Formation and evolution of binary asteroids.” *Asteroids IV* (Eds. P. Michel, F. E. DeMeo & W. F. Bottke) University of Arizona Press, Space Science Series, 375–393 (2015) doi: 10.2458/azu_uapress_9780816532131-ch020
ADS: 2015aste.book..375W
K. J. Walsh & **S. A. Jacobson**
1. “Earth and terrestrial planet formation.” *The early Earth: accretion and differentiation* (Eds. J. Badro & M. J. Walter) AGU/John Wiley & Sons, Inc., Geophysical Monograph Series 212, 49–70 (2015)
doi: 10.1002/9781118860359.ch3 ADS: 2015etpf.book...49J
S. A. Jacobson & K. J. Walsh

Refereed conference proceedings

- 2016 2. “Multiple origins of asteroid pairs.” *Proceedings of the IAU* 318, 55–65 (2016)
doi: 10.1017/S1743921315009655 ADS: 2016IAUS..318...55J
S. A. Jacobson
- 2015 1. “Small asteroid system evolution.” *Proceedings of the IAU* 9:S310, 108–117 (2014)
doi: 10.1017/S174392131400800X ADS: 2015IAUS..310..108J
S. A. Jacobson

INVITED TALKS**Short courses**

- 2017 4. “The three body problem” (5 hr). Advanced Dynamics Course, Supérieur École d’Aerospace, Toulouse, France (February 20, 2017)
- 2016 3. “From pebbles to planets: the story of the Solar System” (1.5 hr). APCosPA-Planet² RESCEU Summer School, University of Tokyo, Takayama, Japan (August 24–28, 2016)
2. “The three body problem” (5 hr). Advanced Dynamics Course, Supérieur École d’Aerospace, Toulouse, France (March 7, 2016)
- 2015 1. “Topics in planet formation” (3 hr). CSH Summer School 2015—From dust to planets & geology, Universtät Bern, Leukerbad, Switzerland (August 24–28, 2015)

Colloquia

- 2017 23. “A combined astronomic-geologic approach to understanding planet formation.” Seminar, Centre for Research in Earth and Space Science, York University, Toronto, Canada (March 3, 2017)
22. “A combined astronomic-geologic approach to understanding planet formation.” Department colloquia, Astronomy, Cornell University, Ithaca, New York, USA (February 28, 2017)
21. “Activated asteroids, missing family members, and pieces of planets.” Planetary Lunch Seminar, Astronomy, Cornell University, Ithaca, New York, USA (February 27, 2017)
20. “A combined astronomic-geologic approach to understanding planet formation.” APS colloquia, Astrophysical and Planetary Sciences, University of Colorado, Boulder, Colorado, USA (February 6, 2017)
19. “A combined astronomic-geologic approach to understanding planet formation.” Department seminar, Earth and Planetary Sciences, Northwestern University, Evanston, Illinois, USA (January 23, 2017)
- 2016 18. “Giant impacts and formation of Earth’s core.” Department seminar, Earth and Planetary Sciences, Northwestern University, Evanston, Illinois, USA (March 14, 2016)
17. “Differentiation of Earth.” Special seminar, Earth and Planetary Sciences, University of California, Santa Cruz, California, USA (March 2, 2016)
16. “Growth of the terrestrial planets.” Whole Earth Seminar, Earth and Planetary Sciences, University of California, Santa Cruz, California, USA (March 1, 2016)
- 2015 15. “The last giant impact on Earth.” Institute for Geophysics and Planetary Physics Seminar, Earth and Planetary Sciences, University of California, Santa Cruz, California, USA (December 11, 2015)
14. “Importance of the timing of the last giant (Moon-forming) impact.” Annual Academy Commission, Bayerisches Geoinstitut, Universität Bayreuth, Bayreuth, Germany (April 16, 2015)
13. “Moon formation in the context of the protoplanetary disk.” Planetary science group, Purdue University, West Lafayette, Indiana, USA (January 2, 2015)
- 2014 12. “Terrestrial planet formation in the age of the truncated disk.” Bayerisches Geoinstitut, Universität Bayreuth, Bayreuth, Germany (September 9, 2014)
11. “Terrestrial planet formation in the age of the truncated disk.” Department of Earth Sciences, Eidgenössische Technische Hochschule Zürich, Zürich, Switzerland, department seminar (June 5, 2014)
10. “Terrestrial planet formation in the age of the truncated disk.” Institut für Planetologie, Westfälische Wilhelms-Universität Münster, Münster, Germany (April 23, 2014)
9. “Terrestrial planet formation in the age of the truncated disk.” Lund Observatory, Lund University, Lund, Sweden (April 10, 2014)

- 2013 8. “Terrestrial planet formation in the age of the truncated disk.” Solar, Stellar, and Planetary Sciences Seminar, Center for Astrophysics, Harvard University, Cambridge, MA, USA (November 13, 2013)
- 2012 7. “Rubble-pile asteroid evolution.” Science Visitor and Colloquia Program Planetary Science Seminar, Jet Propulsion Labs, La Cañada Flintridge, CA, USA (November 14, 2012)
6. “The role of non-gravitational forces in asteroid binaries.” Friday Lunch Astronomy Seminar Hour, National Optical Astronomy Observatory, Tucson, AZ, USA (October 19, 2012)
5. “Small asteroid evolution.” Groupe de Planétologie, Observatoire de la Côte d’Azur, Nice, France (September 19, 2012)
4. “Binary asteroids: formation and evolution.” Department of Earth and Space Sciences, University of California, Los Angeles, CA, USA (May 3, 2012)
3. “Small asteroid evolution.” Planetary Science Directorate, Southwest Research Institute, Boulder, CO, USA (January 24, 2012)
- 2010 2. “Dynamics of rotationally fissioned asteroids: source of observed asteroid systems.” Planetary group, University of Colorado, Boulder, CO, USA (April 2, 2010)
- 2009 1. “Planetary astrophysics: dynamics of post-fission asteroids.” JILA, University of Colorado, Boulder, CO, USA (November 20, 2009)

CONFERENCE & WORKSHOP PARTICIPATION

Invited Conference Presentations & Abstracts

- 2016 4. “Formation and early evolution of the solar system: the big picture.” ISSI-Europlanet forum, Bern, Switzerland, Talk (September 13–15, 2016)
S. A. Jacobson
3. “Beyond matching orbits and masses, terrestrial planet formation in the era of compositional constraints.” 26th Goldschmidt conference, Yokohama, Japan, Talk 1312 (June 26–July 1, 2016)
S. A. Jacobson, D. C. Rubie & A. Morbidelli
- 2015 2. “Evolutionary pathways for asteroid satellites.” IAU Symposium 318: Asteroids: New Observations, New Models, Honolulu, HI, USA (August 3–7, 2015)
ADS: 2015IAUGA..2257686J
S. A. Jacobson
- 2014 1. “Small asteroid evolution.” IAU Symposium 310: Complex Planetary Systems, Namur, Belgium (July 7–11, 2014) ADS: 2015IAUS..310..108J
S. A. Jacobson

Contributed Conference Presentations & Abstracts – First Author

- 2017 41. “Mantle composition constraints on different planet formation scenarios.” 27th Goldschmidt conference, Paris, France, Talk 1508 (August 13–18, 2017)
S. A. Jacobson, D. C. Rubie, A. Morbidelli, A. Izidoro, & S. N. Raymond

40. “A Martian origin for the Mars Trojans and the A-type Hungarias.” 48th DDA meeting, London, United Kingdom, Talk (June 12–15, 2017)
S. A. Jacobson, D. Polishook, A. Morbidelli & O. Arohson
39. “Mantle composition constraints on planet formation scenarios.” 2nd ACCRETE meeting, Nice, France, Talk (May 29– June 3, 2017)
S. A. Jacobson, A. Morbidelli, D. C. Rubie, S. Raymond & A. Izidoro
38. “A Martian origin for the Mars Trojans and the A-type Hungarias.” 13th ACM conference, Montevideo, Uruguay, Talk (April 10–14, 2017)
S. A. Jacobson, D. Polishook, A. Morbidelli & O. Arohson
- 2016 37. “Composition and origin of Theia—the Moon-forming impactor.” 62nd AGU Fall Meeting, San Francisco, CA, USA, Poster V41A-3107 (December 12–16, 2016)
S. A. Jacobson, D. C. Rubie, A. Morbidelli & E. D. Young
36. “Quantifying the lack of differentiated material amongst asteroid families.” 48th DPS meeting, Pasadena, CA, USA, Talk 522.08 (October 17–21, 2016)
S. A. Jacobson & A. Morbidelli
35. “Terrestrial core stratification and subsequent mixing.” 26th Goldschmidt conference, Yokohama, Japan, Talk 1311 (June 26–July 1, 2016)
S. A. Jacobson, J. Hernlund, D. C. Rubie & A. Morbidelli
34. “Asteroid geophysics from applying tidal theory to binary asteroids.” 4th Workshop on Binaries in the Solar System conference, Prague, Czechia, Talk (June 21–23, 2016)
S. A. Jacobson
33. “Establishing different size distributions in the asteroid belt.” 47th DDA, Nashville, TN, USA, Talk (May 22–26, 2016) ADS: [2016DDA....4730004J](#)
S. A. Jacobson, A. Morbidelli & B. Carry
32. “There’s too much mantle material in the asteroid belt.” 47th LPSC, The Woodlands, TX, USA, *LPI Contribution* 1903, Talk 1895 (March 21–25, 2016) ADS: [2016LPI...47.1895J](#)
S. A. Jacobson, F. DeMeo, A. Morbidelli, B. Carry, D. Frost & D. C. Rubie
31. “Ice line fossilization.” ISSI Workshop on “The delivery of water to proto-planets, planets and satellites,” Bern, Switzerland, Talk (January 11–15, 2016)
S. A. Jacobson, A. Morbidelli, B. Bitsch, A. Crida, M. Gounelle, T. Guillot, A. Johansen, M. Lambrechts & E. Lega
- 2015 30. “Core layering.” 61st AGU Fall Meeting, San Francisco, CA, USA, Talk DI41B-04 (December 14–18, 2015)
S. A. Jacobson, D. C. Rubie, J. Hernlund & A. Morbidelli
29. “A late giant impact is necessary to create Earth’s magnetic field.” 46th LPSC, The Woodlands, TX, USA, *LPI Contribution* 1832, Poster 1882 (March 16–20, 2015) ADS: [2015LPI...46.1882J](#)
S. A. Jacobson, D. C. Rubie, J. Hernlund & A. Morbidelli
28. “Composition of the terrestrial planets in the Grand Tack model.” Workshop on Early Solar System Impact Bombardment III, Houston, TX, USA, *LPI Contribution* 1826, Talk 3034 (February 4–5, 2015) ADS: [2015LPICo1826.3034J](#)
S. A. Jacobson, E. D. Young, D. C. Rubie & A. Morbidelli

- 2014
27. “Accretion and core-mantle differentiation of the Earth and other terrestrial planets.” 46th DPS meeting, Tucson, AZ, USA, *Bulletin of the AAS* 46:5, Talk 504.03 (November 9–14, 2014) ADS: 2014DPS....4650403J
S. A. Jacobson, D. C. Rubie, A. Morbidelli, D. P. O’Brien, E. D. Young, J. de Vries, F. Nimmo, H. Palme & D. J. Frost
26. “Forming the wide asynchronous binary asteroid population.” 12th ACM conference, Helsinki, Finland, Talk (June 30–July 4, 2014) ADS: 2014acm..conf..232J
S. A. Jacobson, D. J. Scheeres & J. McMahon
25. “Both size-frequency distribution and sub-populations of the main belt asteroid population are consistent with YORP-induced rotational fission.” 12th ACM conference, Helsinki, Finland, Talk (June 30–July 4, 2014) ADS: 2014acm..conf..234J
S. A. Jacobson, D. J. Scheeres, A. Rossi, F. Marzari & D. Davis
24. “Dynamical friction during planet formation in the Grand Tack scenario.” 45th DDA meeting, Philadelphia, PA, USA, *Bulletin of the AAS* 46:3 Talk 102.02 (April 28–May 2, 2014) ADS: 2014DDA....4510202J
S. A. Jacobson & A. Morbidelli
23. “Planet formation within the Grand Tack model.” 45th LPSC, The Woodlands, TX, USA, *LPI Contribution* 1777, Talk 2274 (March 17–21, 2014) ADS: 2014LPI....45.2274J
S. A. Jacobson, A. Morbidelli, D. C. Rubie, D. P. O’Brien, S. N. Raymond, K. J. Walsh, S. Stewart & S. Lock
22. “The effects of rotational fission on the Main Belt asteroid population.” 45th LPSC, The Woodlands, TX, USA, *LPI Contribution* 1777, Poster 2363 (March 17–21, 2014) ADS: 2014LPI....45.2363J
S. A. Jacobson, D. J. Scheeres, A. Rossi, & F. Marzari
- 2013
21. “Getting down ‘to brass tacks’ in the Grand Tack scenario: matching important accretion and timing constraints.” 45th DPS meeting, Denver, CO, USA, *Bulletin of the AAS* 45:5, Talk 503.02 (October 6–11, 2013) ADS: 2013DPS....4550302J
S. A. Jacobson, A. Morbidelli, K. J. Walsh, D. P. O’Brien, S. N. Raymond & D. C. Rubie
20. “Moon formation in the Grand Tack scenario.” Royal society satellite meeting: origin of the Moon—challenges and prospects, Chicheley Hall, Buckinghamshire, UK, Poster (September 25–26, 2013)
S. A. Jacobson, A. Morbidelli, K. J. Walsh, D. P. O’Brien, S. N. Raymond & D. C. Rubie
19. “Tactful accretion: considering constraints in the Grand Tack model.” Conference for Protostars and Planets VI, Heidelberg, Germany, Poster 2H024 (July 15–20, 2013) ADS: 2013prpl.conf2H024J
S. A. Jacobson, A. Morbidelli, K. J. Walsh, D. P. O’Brien & S. N. Raymond
18. “Last giant (Moon-forming) impacts in the Grand Tack paradigm.” 12th GRC: Origins of Solar Systems, South Hadley, MA, USA, Poster (June 23–28, 2013)
S. A. Jacobson, A. Morbidelli, K. J. Walsh, D. P. O’Brien & S. N. Raymond

- 2012 17. “Asteroid geophysics through a tidal-BYORP equilibrium.” 60th AGU Fall Meeting, San Francisco, CA, USA, Poster P31A-1875 (December 3–7, 2012)
ADS: 2012AGUFM.P31A1875J
S. A. Jacobson & D. J. Scheeres
16. “Comet bursting through relaxation.” 44th DPS meeting, Reno, NV, USA, *Bulletin of the AAS* 44:5, Talk 514.03 (October 14–15, 2012) ADS: 2012DPS....4431407J
S. A. Jacobson & D. J. Scheeres
15. “Spacecraft discoveries enabled by photometric observations of the dynamics of 1996 FG₃.” 7th EPSC, Madrid, Spain, Talk 365 (September 23–28, 2012)
ADS: 2012epsc.conf..365J
S. A. Jacobson, P. Scheirich, P. Pravec & D. J. Scheeres
14. “Forming the observed binary asteroid population.” 11th ACM conference, Niigata, Japan, *LPI Contribution* 1667, Talk 6092 (May 16–20, 2012)
ADS: 2012LPICo1667.6092J
S. A. Jacobson & D. J. Scheeres
13. “Long-term rotation state evolution of comet nuclei including the effects of jet torques and internal dissipation.” 43rd DDA meeting, Mt. Hood, OR, USA, *Bulletin of the AAS* 44:3, Talk 08.06 (May 6–10, 2012) ADS: 2012DDA....43.0805J
S. A. Jacobson & D. J. Scheeres
12. “Asteroid evolutionary tracks.” 43rd DDA meeting, Mt. Hood, OR, USA, *Bulletin of the AAS* 44:3, Poster 09.15 (May 6–10, 2012) ADS: 2012DDA....43.0915J
S. A. Jacobson & D. J. Scheeres
11. “Formation of the asynchronous binary asteroids.” 43rd LPSC, The Woodlands, TX, USA, *LPI Contribution* 1659, Talk 2737 (March 19–23, 2012)
ADS: 2012LPI...43.2737J
S. A. Jacobson & D. J. Scheeres
- 2011 10. “Evolution of small near-Earth asteroid binaries.” Joint 43rd DPS meeting and 6th EPSC, Nantes, France, Talk 647-2 (October 2–11, 2011) ADS: 2011epsc.conf..647J
S. A. Jacobson & D. J. Scheeres
9. “A long-term stable equilibrium for synchronous binaries including tides and the BYORP effect.” 42nd DDA meeting, Austin, TX, USA, *Bulletin of the AAS* 43:3, Talk 01.02 (April 10–14, 2011) ADS: 2011DDA....42.0102J
S. A. Jacobson & D. J. Scheeres
8. “Long-term stable equilibria for synchronous binary asteroids.” 42nd LPSC, The Woodlands, TX, USA, *LPI Contribution* 1608, Talk 2239 (March 7–11, 2011)
ADS: 2011LPI...42.2239J
S. A. Jacobson & D. J. Scheeres
- 2010 7. “Dynamics of rotationally fissioned asteroids.” 42nd DPS meeting, Pasadena, CA, USA, *Bulletin of the AAS* 42:4, Talk 63.07 (October 3–8, 2010)
ADS: 2010DPS....42.6307J
S. A. Jacobson & D. J. Scheeres
6. “Dynamical evolution of binary asteroid systems.” 2nd Workshop on Binaries in the Solar System, Poznan, Poland, Talk (July 13–15, 2010)
S. A. Jacobson & D. J. Scheeres

5. “Formation of observed asteroid systems by rotational fission.” 41st DDA meeting, Brookline, MA, USA, *Bulletin of the AAS* 41:3, Talk 02.07 (April 25–29, 2010)
ADS: 2010DDA....41.0207J
S. A. Jacobson & D. J. Scheeres
4. “The evolution of binary asteroids formed by spin fission.” 41st LPSC, The Woodlands, TX, USA, *LPI Contribution* 1533, Talk 2098 (2010)
ADS: 2010LPI...41.2098J
S. A. Jacobson & D. J. Scheeres
- 2009 3. “A rapid phase of tidal dissipation for post-fission binary asteroids.” 41st DPS meeting, Fajardo, Puerto Rico, USA, *Bulletin of the AAS* 41:3, Talk 56.08 (October 4–9, 2009) ADS: 2009DPS....41.5608J
S. A. Jacobson & D. J. Scheeres
2. “Tidal and dynamical evolution of binary asteroids.” 40th DDA meeting, Virginia Beach, VA, USA, *Bulletin of the AAS* 41:2, Talk 10.02 (May 2–5, 2009)
ADS: 2009DDA....40.1002J
S. A. Jacobson & D. J. Scheeres
- 2007 1. “Colors of TNO binaries and evidence for a triple system from HST observations.” 39th DPS meeting, Orlando, FL, USA, *Bulletin of the AAS* 39:3, Poster 52.11 (October 7–12, 2007) ADS: 2007DPS....39.5211J
S. A. Jacobson & J.-L. Margot
- Contributed Conference Presentations & Abstracts – Coauthor**
- 2017 32. “Sequestration of tungsten into the core during Earths accretion.” 26th Goldschmidt conference, Paris, France, Talk 1831 (August 13–18, 2017)
E. Jennings, D. C. Rubie, **S. A. Jacobson**, A. Morbidelli, K. Armstrong & D. J. Frost
31. “HSE removal from the lunar mantle and the timeline of the lunar bombardment.” 26th Goldschmidt conference, Paris, France, Talk 1831 (August 13–18, 2017)
A. Morbidelli, D. Nesvorny, V. Laurenz, S. Marchi, D. Rubie, L. Elkins-Tanton, & **S. A. Jacobson**
30. “The trouble with building planets too quickly: rapid accretion in Grand Tack simulations requires extremely efficient mantle equilibration of Hf-W.” 48th LPSC, The Woodlands, TX, USA, *LPI Contribution* 2298, Talk 1750 (March 20–24, 2017)
N. G. Zube, F. Nimmo, **S. A. Jacobson**, & R. Fischer
29. “Geophysical implications of fast KBO accretion.” 48th LPSC, The Woodlands, TX, USA, *LPI Contribution* 2298, Poster 1624 (March 20–24, 2017)
C. J. Bierson, F. Nimmo, C. Goldblatt, & **S. A. Jacobson**
28. “The lunar late heavy bombardment as a tail-end of planet accretion.” 48th LPSC, The Woodlands, TX, USA, *LPI Contribution* 2298, Talk 1895 (March 20–24, 2017)
A. Morbidelli, D. Nesvorny, V. Laurenz, S. Marchi, D. C. Rubie, L. Elkins-Tanton, & **S. A. Jacobson**
- 2016 27. “Following the Tungsten: isotopic consequences of Earth, Mars, and the proto-Moon formation in Grand Tack accretion simulations.” 62nd AGU Fall Meeting, San Francisco, CA, USA, Poster P53D-01 (December 12–16, 2016)
N. Zube, F. Nimmo & **S. A. Jacobson**

26. “A scaling relationship for impact-induced melt volume.” 62nd AGU Fall Meeting, San Francisco, CA, USA, Poster P51A-2118 (December 12–16, 2016)
M. Nakajima, D. C. Rubie, H. J. Melosh, **S. A. Jacobson**, G. Golabek, F. Nimmo & A. Morbidelli
25. “Shared origin for seven of Mars trojans – impact ejecta from Mars?” 48th DPS meeting, Pasadena, CA, USA, Talk 522.08 (October 17–21, 2016)
D. Polishook, **S. A. Jacobson** & O. Aharonson
24. “Accretion, mixing, and differentiation of planetary bodies.” Before the Moon, Japan, Talk (2016)
F. Nimmo, R. Fischer, N. Zube, **S. A. Jacobson** & D. P. O’Brien
23. “Evolution of sulfur concentrations in magma oceans during Earth’s accretion.” 26th Goldschmidt conference, Yokohama, Japan, Talk 2677 (June 26–July 1, 2016)
D. C. Rubie, V. Laurenz, **S. A. Jacobson**, A. Morbidelli, H. Palme, A. K. Vogel & D. J. Frost
22. “High concentrations of highly siderophile elements were stripped from Earth’s mantle by the segregation of exsolved iron sulfide melt.” 47th LPSC, The Woodlands, TX, USA, *LPI Contribution* 1903, Talk 1895 (March 21–25, 2016) ADS: [2016LPI...47.1112R](#)
D. C. Rubie, V. Laurenz, **S. A. Jacobson**, A. Morbidelli, H. Palme, A. K. Vogel & D. J. Frost
21. “Tungsten isotopic evolution and mantle equilibration in Grand Tack accretion simulations.” 47th LPSC, The Woodlands, TX, USA, *LPI Contribution* 1903, Talk 2480 (March 21–25, 2016) ADS: [2016LPI...47.2480Z](#)
N. G. Zube, F. Nimmo & **S. A. Jacobson**
20. “Oxygen isotopic evidence for vigorous mixing during the Moon-forming giant impact.” 47th LPSC, The Woodlands, TX, USA, *LPI Contribution* 1903, Talk 1803 (March 21–25, 2016) ADS: [2016LPI...47.1803Y](#)
E. D. Young, I. E. Kohl, P. H. Warren, D. C. Rubie, **S. A. Jacobson** & A. Morbidelli
- 2015 19. “The Origin of Non-chondritic HSE Ratios in the Earth’s Mantle.” 61st AGU Fall Meeting, San Francisco, CA, USA, Talk V52A-01 (December 14–18, 2015)
V. Laurenz, D. C. Rubie, **S. A. Jacobson**, A. Morbidelli, H. Palme & A. Vogel
18. “Origin of the great dichotomy of the Solar System: small terrestrial embryos and massive giant planet cores.” IAU Division A Fundamental Astronomy Meeting 29, Honolulu, HI, USA (August 7 & 10, 2015) ADS: [2015IAUGA..2248393M](#)
A. Morbidelli, M. Lambrechts, B. Bitsch & **S. A. Jacobson**
17. “The size and fragmentation of the nucleus of comet C/2012 S1 (ISON).” 46th LPSC, The Woodlands, TX, USA, *LPI Contribution* 1832, Poster 2723 (March 16–20, 2015) ADS: [2015LPI...46.2723S](#)
J. K. Steckloff, J. Keane, M. M. Knight, J. Kleyna, S. N. Milam, I. Coulson, K. Meech, **S. A. Jacobson** & H. J. Melosh

- 2014 16. “A novel, sublimation-driven YORP-like effect, and the formation of dust striae in cometary tails.” 46th DPS meeting, Tucson, AZ, USA, *Bulletin of the AAS* 46:5, Talk 200.05 (November 9–14, 2014) ADS: 2014DPS....4620005S
J. K. Steckloff & **S. A. Jacobson**
15. “Using binary asteroids to explore the interior geophysics of rubble-pile asteroids.” 12th ACM conference, Helsinki, Finland, Talk (June 30–July 4, 2014) ADS: 2014acm..conf..472S
D. J. Scheeres, **S. A. Jacobson**, J. McMahon & M. Hirabayashi
14. “Accretion and differentiation of the terrestrial planets: implications for the compositions of early-formed Solar System bodies.” 45th LPSC, The Woodlands, TX, USA, *LPI Contribution* 1777, Talk 1734 (March 17–21, 2014) ADS: 2014LPI...45.1734R
D. C. Rubie, **S. A. Jacobson**, A. Morbidelli & E. D. Young
13. “Melting due to impacts on growing proto-planets.” 45th LPSC, The Woodlands, TX, USA, *LPI Contribution* 1777, Poster 1896 (March 17–21, 2014) ADS: 2014LPI...45.1896D
J. de Vries, F. Nimmo, H. J. Melosh, **S. A. Jacobson**, A. Morbidelli & D. C. Rubie
- 2013 12. “Constraining the interior geophysics of rubble pile asteroids.” 61st AGU Fall Meeting, San Francisco, CA, USA, Poster P22A-05 (December 9–13, 2013) ADS: 2013AGUFM.P22A..05S
D. J. Scheeres, **S. A. Jacobson**, J. McMahon & M. Hirabayashi
11. “A lower size limit for near-Earth asteroid satellites.” 61st AGU Fall Meeting, San Francisco, CA, USA, Poster P23A-1762 (December 9–13, 2013) ADS: 2013AGUFM.P23A1762B
M. W. Busch, **S. A. Jacobson**, L. Benner, M. Brozovic, E. S. Howell, J.-L. Margot, S. Naidu, M. K. Shepard & P. A. Taylor
10. “Effects of YORP-induced rotational fission on the small size end of the Main Belt asteroid size distribution.” 45th DPS meeting, Denver, CO, USA, *Bulletin of the AAS* 45:5, Talk 301.08 (October 6–11, 2013) ADS: 2013DPS....4530108R
A. Rossi, **S. A. Jacobson**, F. Marzari, D. J. Scheeres & D. R. Davis
9. “Accretion and chemical evolution of the terrestrial planets.” 23rd Goldschmidt conference, Florence, Italy, *Mineralogical Magazine* 77:5, Talk 2094 (August 25–30, 2013)
D. C. Rubie, D. P. O’Brien, A. Morbidelli, **S. A. Jacobson** & E. D. Young
- 2012 8. “Radar imaging of 11066 Sigurd, 2000 YF₂₉, and 2004 XL₁₄ and the obliquity distribution of contact binary near-Earth asteroids.” 44th DPS meeting, Reno, NV, USA, *Bulletin of the AAS* 44:5, Talk 302.05 (October 14–19, 2012) ADS: 2012DPS...4430205B
M. W. Busch, S. J. Ostro, L. A. Benner, M. Brozovic, C. Magri, D. J. Scheeres, **S. A. Jacobson**, J. L. Margot, M. C. Nolan, P. A. Taylor, E. Howell, M. Shepard & J. D. Giorgini

7. “Zero drift in the mean anomaly of the satellite of 1996 FG₃ and its implications for the BYORP theory.” 11th ACM conference, Niigata, Japan, *LPI Contribution* 1667, Talk 6123 (May 16–20, 2012) ADS: 2012LPICo1667.6123S
Scheirich, P., P. Pravec, S. Mottola, M. Mommert, K. Hornoch, P. Kušnirák, J. Pittichová, **S. A. Jacobson**, D. Pray, D. Polishook, Y. N. Krugly, I. Slyusarev, J. Pollock, E. Jehin, J. Manfroid, M. Gillon, A. Galád, J. Licandro, V. Alí-Lagoa, J. Brinsfeld, R. Y. Inasaridze & I. E. Molotov
 6. “Comet Rotational Relaxation and Interior Stresses and Loads.” 43rd LPSC, The Woodlands, TX, USA, *LPI Contribution* 1659, Talk 2169 (March 19–23, 2012) ADS: 2012LPI...43.2169S
D. J. Scheeres, & **S. A. Jacobson**
 5. “Effects of YORP-induced rotational fission on the asteroid size distribution at the small size end.” 43rd LPSC, The Woodlands, TX, USA, *LPI Contribution* 1659, Talk 2095 (March 19–23, 2012) ADS: 2012LPI...43.2095R
A. Rossi, F. Marzari, D. J. Scheeres & **S. A. Jacobson**
 - 2011 4. “Asteroid fission, binaries and the small Main Belt population.” Joint 43rd DPS meeting and 6th EPSC, Nantes, France, Talk 499 (October 2–11, 2011) ADS: 2011epsc.conf..499R
A. Rossi, **S. A. Jacobson**, F. Marzari & D. J. Scheeres
 3. “(Non-)detection of a quadratic drift in mean anomaly of the satellite of 1996 FG₃.” Joint 43rd DPS meeting and 6th EPSC, Nantes, France, Talk 492-1 (October 2–11, 2011) ADS: 2011epsc.conf..492S
P. Scheirich, P. Pravec, S. Mottola, M. Mommert, K. Hornoch, P. Kušnirák, J. Pittichová, **S. A. Jacobson**, D. Pray, M. Mueller & the team of Spitzer program 70054
 - 2010 2. “Formation of asteroid pairs by rotational fission.” 41st DDA meeting, Brookline, MA, USA, *Bulletin of the AAS* 41:3, Talk 02.06 (April 25–29, 2010) ADS: 2010DDA....41.0206S
Scheeres, D. J., P. Pravec, D. Vokrouhlický, D. Polishook, A. W. Harris, A. Galád, O. Vaduvescu, F. Pozo, A. Barr, P. Longa, F. Vachier, F. Colas, D. P. Pray, J. Pollock, D. Reichart, K. Ivarsen, J. Haislip, A. Lacluyze, P. Kušnirák, T. Henych, F. Marchis, B. Macomber, **S. A. Jacobson**, Y. N. Krugly, A. V. Sergeev & A. Leroy
 - 2009 1. “Fission and stability of ellipsoidal contact binary asteroids.” 40th LPSC, The Woodlands, TX, USA, *LPI Contribution* 1468, Talk 2040 (March 23–27, 2009) ADS: 2009LPI...40.2040S
D. J. Scheeres & **S. A. Jacobson**
- Workshop Participation — Research Related**
- 2017 20. “Origins of Solar Systems,” Gordon Research Conference, Mount Holyoke College, South Hadley, Massachusetts, USA (June 19–23, 2017)
 19. “Accretion and early differentiation of the Earth and terrestrial planets,” Saint Paul Hotel, Nice, France (May 29–June 3, 2017)
 18. “Chronology of the formation of the Solar System,” Ecole Physique des Houches, Les Houches, France (February 13–17, 2017)

- 2016
17. “Third ACCRETE Workshop,” Observatoire de la Côte d’Azur, Nice, France (October 10–11, 2016)
 16. “Outstanding questions for solar system planetary science and associated key representative space missions,” ISSI-Europlanet, Bern, Switzerland (September 13–15, 2016)
 15. “Binaries in the Solar System IV,” Ondrejov Observatory, Prague, Czechia (June 21–23, 2016)
 14. “Primitive material in the Solar System II,” Observatoire de la Côte d’Azur, Villefranche-sur-Mer, France (June 6–8, 2016)
 13. “AIDA 2nd International Workshop,” Observatoire de la Côte d’Azur, Nice, France (June 1–3, 2016)
 12. “The delivery of water to proto-planets, planets and satellites,” International Space Science Institute, Bern, Switzerland (January 11–15, 2016)
- 2015
11. “Origins of Solar Systems,” Gordon Research Conference, Mount Holyoke College, South Hadley, Massachusetts, USA (June 29–July 2, 2015)
 10. “Second ACCRETE Workshop,” Universität Bayreuth, Bayreuth, Germany (May 13–14, 2015)
 9. “Workshop on Early Solar System Bombardment III,” Lunar and Planetary Institute, Houston, Texas, USA (February 4–5, 2015)
- 2014
8. “IAU Symposium: Complex Planetary Systems,” Université de Namur, Namur, Belgium (July 7–11, 2014)
 7. “Carbonaceous chondrites: their parent bodies and their link with primitive asteroids,” Citadelle de Villefranche-sur-Mer, Villefranche-sur-Mer, France (June 2–4, 2014)
 6. “Accretion and early differentiation of the terrestrial planets,” Saint Paul Hotel, Nice, France (May 26–31, 2014)
- 2013
5. “Origins of Solar Systems,” Gordon Research Conference, Mount Holyoke College, South Hadley, Massachusetts, USA (June 10–15, 2013)
 4. “From the first solids to the first planetesimals,” Ecole Physique des Houches, Les Houches, France (February 10–15, 2013)
 3. “ACCRETE Workshop,” Bayerisches Geoinstitut, Universität Bayreuth, Bayreuth, Germany (January 30–31, 2013)
- 2012
2. “Boulder Asteroid Interior Workshop,” University of Colorado, Boulder, Colorado, USA (August 7–8, 2012)
- 2010
1. “The Second Workshop on Binaries in the Solar System,” Adam Mickiewicz University, Wasowo Castle, Poznan, Poland (July 13–15, 2010)

Workshop Participation — Teaching Related

- 2011 2. “Improving the College Introductory Astronomy Survey Course for Non-science Majors through Active Engagement: A Tier 1 (Introductory) Workshop,” Center for Astronomy Education, Boulder, CO (April 17-18, 2011)
1. “The Graduate Teacher Program Spring Conference 2011: Context & Engagement in the College Classroom,” University of Colorado, Boulder, CO (Jan 6-7, 2011)

TEACHING EXPERIENCE**University of Colorado at Boulder**

- 2012 **Grading assistant**, Planets, Moons & Rings with Larry Esposito Ph.D.
- 2011 **Instructor of record**, Introductory Astronomy 1 - Solar System with Julia Kamenetzky M.S.
Grading assistant, Formation & Dynamics of Planetary Systems with Nick Schneider Ph.D.
Grading assistant, Radiative & Dynamical Processes with Rosalba Perna Ph.D.
- 2009 **Grading assistant**, Introductory Astronomy 1 - Solar System with Colin Wallace M.S.
Laboratory manual author & editor, Accelerated Introductory Astronomy 1 - Solar System (15 labs, 224 pages, 20% new material, 80% edited old material)
Laboratory teaching assistant, Introductory Astronomy 1 - Solar System with Seth Hornstein Ph.D.
- 2008 **Laboratory teaching assistant**, Accelerated Introductory Astronomy 1 - Solar System with Bob Ergun Ph.D.

Cornell University

- 2007 **Laboratory teaching assistant**, Lasers & Photonics with Alexander Gaeta Ph.D.
Peer tutor, Introductory Calculus & Physics with Lisa Schneider Ph.D.

RESEARCH EXPERIENCE

- 2017– **Assistant Professor** in the Department of Earth and Planetary Sciences at Northwestern University, Evanston, Illinois, USA.
- 2013–2017 **Postdoctoral Researcher** on the ACCRETE Project jointly at the Bayerisches Geoinstitut, Universität Bayreuth, Bayreuth, Germany with Dave Rubie Ph.D. and the Laboratoire Lagrange, Observatoire de la Côte d’Azur, Nice, France with Alessandro Morbidelli Ph.D.
- 2009–2012 **Graduate Research Assistant** with a NASA Earth & Space Science Fellowship in the Colorado Center for Astrodynamics Research with Daniel J. Scheeres Ph.D.
- 2007–2008 **Undergraduate Research Assistant** with an Independent Student Research Grant in the Department of Astronomy with Jean-Luc Margot Ph.D.
- 2006 **Undergraduate Research Assistant** with an NSF REU Fellowship in the Geophysical Laboratory with Burkhard Militzer Ph.D.
- 2005–2006 **Undergraduate Research Assistant** in the Department of Astronomy, Cornell University, Ithaca, NY, USA with Gordon Stacey Ph.D.

Observing Experience**Demonstrating evidence of multiple YORP cycles by observing Mars Trojans**

NASA IRTF 3.0-m telescope (Instruments: SpeX, 0.7-5.3 micron spectrograph and imager)

2016 IRTF Proposal 2016A-020, CoI 3 nights awarded

Direct Imaging Studies of Binary Asteroid Systems

Hubble Space Telescope 2.4-m telescope (Instruments: WFC3/UVIS, imaging camera)

2015 HST Proposal Cycle 23-14133, CoI 6 orbits awarded

Photometric Lightcurve Studies of Binary Asteroid Systems

Kitt Peak National Observatory 2.1-m telescope (Instruments: T2KB and STA1, imaging cameras)

2012 NOAO Proposal 2012B-0276, PI 5.5 nights awarded

NOAO Proposal 2012A-0255, PI 6 nights awarded

2011 NOAO Proposal 2011B-0297, PI 5.5 nights awarded

NOAO Proposal 2011A-0526, PI 9.5 nights awarded

Apache Point Observatory 3.5-m telescope (Instrument: SPICAM, imaging camera)

2012 APO Proposal 2012Q1-CU02, PI 2 half-nights awarded

2011 APO Proposal 2011Q3-CU01, PI 2 half-nights awarded

APO Proposal 2011Q2-CU02, PI 3 half-nights awarded

2010 APO Proposal 2010Q4-CU02, PI 3 half-nights awarded

SERVICE TO THE PROFESSION**Journal referee**

Icarus (12), *Astronomical Journal* (3), *Astronomy & Astrophysics* (2), *Earth & Planetary Science Letters* (3), *Nature Geosciences* (1), *Astrophysical Journal Letters* (1), *Monthly Notices of the Royal Astronomical Society* (1), *Planetary and Space Sciences* (1), *IAU Proceedings* (1), *Moon, Earth & Planets* (1), *Research in Astronomy and Astrophysics* (1), *Astrophysical Journal* (1), *Progress in Earth and Planetary Science* (1), *Publications of the Astronomical Society of Australia* (1)

Professional organization leadership

2017–2018 AAS DDA vice chair

2015–2017 AAS DDA committee member

Professional organization membership

2010– American Astronomical Society
 Division for Planetary Sciences
 Division on Dynamical Astronomy

2012– American Geophysical Union
 Planetary Sciences
 Study of the Earths Deep Interior

2014– The Planetary Society

2017– Geochemical Society

Conference service

- 2014 ACM contributed talk session co-chair on “Asteroid spin, size and shape III”
2012 LPSC contributed talk session co-chair on “Small body studies 1: formation, regolith, and rubble piles”
2012 AAS DDA contributed talk session chair on “Asteroids”

Service for Laboratoire Lagrange, Observatoire de la Côte d’Azur

- 2014– Organizer of weekly journal club and guest speakers, i.e. the “Thèminar”

Service for Astrophysical and Planetary Sciences Department, University of Colorado at Boulder

- 2012 Graduate Representative to the Faculty
2011–2012 Graduate Admissions Committee (chair: Bob Ergun Ph.D.)
2010–2011 Graduate Exams Committee (chair: Andrew Hamilton Ph.D.)
2009–2010 Graduate Concerns Committee (chair: rotating)

PUBLIC OUTREACH

- 2008–2012 Sommers-Bausch Observatory Friday Night Open House Volunteer
2009–2011 Sommers-Bausch Observatory Astronomy Day Volunteer
2010 Mathcounts Coach
2009 Boulder Science Fairs Judge
2007 *Cornell Daily Sun* Staff Science Writer