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Refereed publications – (student and postdoc advisee authors denoted by *)

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25. Pápics, P. I., Tkachenko, A., Aerts, C., Briquet, M., Marcos-Arenal, P., Beck, P. G., Uytterhoeven, K., Triviño Hage, A., Southworth, J., Clubb, K. I., Bloemen, S., Degroote, P., **Jackiewicz, J.**, McKeever, J., Van Winckel, H., Niemczura, E., Gameiro, J. F., Debosscher, J., (2013). “Two new SB2 binaries with main sequence B-type pulsators in the Kepler field”. In: *Astron. Astrophys.* 553, A127, A127. DOI: [10.1051/0004-6361/201321088](https://doi.org/10.1051/0004-6361/201321088). arXiv: [1304.2202](https://arxiv.org/abs/1304.2202) [[astro-ph.SR](#)]
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Under review or in preparation

- **The Origin of Sequential Chromospheric Brightenings.**
M. Kirk, K. Balasubramanian, J. Jackiewicz, H. Gilbert. *Solar Physics* (submitted) (2016)
- **A possible mechanism for driving oscillations in hot giant planets.**
E. Dederick and J. Jackiewicz. *Astrophysical Journal* (submitted) (2016)
- **Jupiter's phase variations from Cassini: A testbed for future direct-imaging missions.**
L. Mayorga, J. Jackiewicz, K. Rages, R. West, B. Knowles, M. Marley. *Astrophysical Journal* (submitted) (2016)
- **A distant mirror: Solar oscillations observed on Neptune by the Kepler K2 mission.**
P. Gaulme, ... J. Jackiewicz, ..., et al. *Astrophysical Journal Letters* (submitted) (2016)
- **Internal gravity waves in the magnetized solar atmosphere I: Magnetic field effects.**
V. Gangadharan, J. Jackiewicz, and O Steiner. *Astrophysical Journal* (submitted) (2016)
- **New discoveries of B-star variables in the Kepler field.**
D. Mozdziński*, J. Jackiewicz, B. McNamara. *Astronomical Journal* (in preparation) (2015)

Selected conference proceedings

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 6. Uytterhoeven, K., Szabo, R., Southworth, J., Randall, S., Ostensen, R., Molenda-Zakowicz, J., Marconi, M., Kurtz, D. W., Kiss, L., Gutierrez-Soto, J., Frandsen, S., De Cat, P., Bruntt, H., Briquet, M., Zhang, X. B., Telting, J. H., Steslicki, M., Ripepi, V., Pigulski, A., Paparo, M., Oreiro, R., Ngeow, C., Niemczura, E., Nemec, J., Narwid, A., Mathias, P., Martin-Ruiz, S., Lehmann, H., Kopacki, G., Karoff, C., **Jackiewicz, J.**, Ireland, M., Huber, D., Henden, A. A., Handler, G., Grigahcenc, A., Green, E. M., Garrido, R., Fox Machado, L., Debosscher, J., Creevey, O. L., Catanzaro, G., Bognar, Z., Biazzo, K., Bernabei, S., (2010). “Ground-based observations of Kepler asteroseismic targets”. In: ArXiv e-prints. arXiv: [1003.6089](https://arxiv.org/abs/1003.6089) [[astro-ph.SR](#)]
 5. **Jackiewicz, J.**, (2009). “Seismic Inversion Methods”. In: American Institute of Physics Conference Series. Ed. by J. A. Guzik and P. A. Bradley. Vol. 1170. American Institute of Physics Conference Series, pp. 574–576. DOI: [10.1063/1.3246565](https://doi.org/10.1063/1.3246565)
 4. Gizon, L., Cameron, R., **Jackiewicz, J.**, Roth, M., Schunker, H., Stahn, T., (2007). “Helioseismology at MPS”. in: Modern solar facilities - advanced solar science. Ed. by F. Kneer, K. G. Puschmann, and A. D. Wittmann, p. 89
 3. **Jackiewicz, J.**, Gizon, L., Birch, A., (2006a). “f-mode sensitivity kernels for flows”. In: Proceedings of SOHO 18/GONG 2006/HELAS I, Beyond the spherical Sun. Vol. 624. ESA Special Publication, p. 52. eprint: [astro-ph/0612475](https://arxiv.org/abs/astro-ph/0612475)
 2. **Jackiewicz, J.**, Gizon, L., Birch, A. C., (2006b). “Sensitivity of Solar F-Mode Travel Times to Internal Flows”. In: SOHO-17. 10 Years of SOHO and Beyond. Vol. 617. ESA Special Publication, p. 38. eprint: [astro-ph/0608604](https://arxiv.org/abs/astro-ph/0608604)
 1. **Progress report on methods of local helioseismology**. L. Gizon, J. Jackiewicz, A.C. Birch, T.L. Duvall Jr. *ESA SP ?*, Lund Conference (2006). <http://www.mps.mpg.de/projects/seismo/papers/lund.pdf>

Selected invited talks and colloquia

24. **Seismology of the Sun, Stars, and Giant Planets.**
Colorado School of Mines. Golden, CO (April, 2017) [invited colloquium]
23. **Gravity waves in the solar atmosphere.**
NSO/DKIST Science Working Group Meeting. Las Cruces, NM (October, 2016) [invited talk]
22. **Jovian Interiors Velocimetry Experiment.**
Jovial Kickoff Workshop. Nice, France (April, 2016) [invited talk]
21. **Meridional Flows from GONG.**
Living with a Star Workshop. Boulder, CO (June 2015) [invited talk]
20. **The future plans for the DST.**
AURA Solar Observatory Council meeting. Cloudcroft, NM (Oct. 2014) [invited talk]
19. **Results from GONG data on meridional flows.**
Solar Subsurface Flows from Helioseismology: Problems and Prospects. Stanford University, CA (July 2014) [invited talk]
18. **Inferring magnetism on the Sun and stars with seismology.**
Physics Department NMSU. Las Cruces, NM (May 2014) [invited colloquium]
17. **Magnetism and seismology of the Sun and stars.**
Rice University Department of Physics. Houston, TX (Feb. 2014) [invited colloquium]
16. **Red giants in eclipsing binaries.**
SDSS III Collaboration Meeting. Baltimore, MD (June 2013) [invited talk]
15. **Recent results from the time-distance technique.**
NSO Workshop #27 - Fifty years of helio- and asteroseismology. Tucson, AZ (May 2013) [invited review talk]
14. **Precision astrophysics experiments with the Kepler satellite.**
2012 Annual Meeting of the Four Corners Section of the APS. Socorro, NM (October 2012) [invited talk]
13. **Frequency inversions for Jovian seismology.**
DI ECHOES: First team meeting. Las Cruces, NM (May 2012) [invited talk]
12. **The U.S. SONG node.**
Fourth SONG Workshop. Charleston, SC (Sep. 2011) [invited panelist]
11. **Imaging the depths of the Sun with helioseismology.**
Boston College Department of Physics. Chestnut Hill, MA (Sep. 2010) [invited colloquium]
10. **Time-distance helioseismology inversions around sunspots - no consensus.**
National Solar Observatory. Tucson, AZ (Aug. 2010) [invited talk]
9. **The U.S. contribution to SONG.**
The Third SONG Workshop. Beijing, China (Mar. 2010) [invited talk]
8. **Solar interior seismology.**
New Mexico State University, Department of Physics. Las Cruces, NM (Nov. 2009) [invited colloquium]

7. **Seismology of the Sun.**
Embry-Riddle Aeronautical University. Prescott, AZ (Oct. 2009) [invited colloquium]
6. **Inversions in the moat of AR9787.**
3rd HELAS Local Helioseismology Workshop. Berlin, Germany (May 2009) [invited talk]
5. **Solar interior seismology.**
University of New Mexico, Department of Physics and Astronomy. Albuquerque, NM (Apr. 2009) [invited colloquium]
4. **Time-distance helioseismology and projects.**
National Solar Observatory. Tucson, AZ (Oct. 2008) [invited talk]
3. **Tomographic methods of local helioseismology.**
New Mexico State University, Department of Mathematical Sciences. Las Cruces, NM (Sep. 2008) [invited colloquium]
2. **Looking beneath the surface of the Sun using helioseismic tomography.**
New Mexico State University. Las Cruces, New Mexico (Apr. 2008). [invited colloquium]
1. **Inversion of helioseismic travel times.**
European Geosciences Union General Assembly. Vienna, Austria (Apr. 2008). [invited talk]
0. **The forward and inverse problems in local helioseismology.**
HELAS II: Helioseismology, Asteroseismology and MHD Connections. Göttingen, Germany (Aug. 2007). [invited review talk]
- 1. **BEC-BCS crossover in atomic Fermi gases.**
Max Planck Institute for Solar System Research. Katlenburg-Lindau, Germany (2005). [invited talk]
- 2. **A local approach to the ferromagnetic transition in metals.**
Adam Mickiewicz University. Poznan, Poland (2003). [invited talk]

Selected contributed talks

16. **Jean RG/EB.**
LWS Workshop - Understanding the Dynamics of the Sun using Helioseismology and MHD Simulations. Azores, Portugal (July 2016)
15. Mayorga, L., **Jackiewicz, J.**, Rages, K., West, R., Knowles, B., Marley, M., Lewis, N., (2016). "Jupiter's Phase Variations from Cassini: a testbed for future direct-imaging missions". In: AAS/Division for Planetary Sciences Meeting Abstracts. Vol. 48. AAS/Division for Planetary Sciences Meeting Abstracts, #202.07
14. Rawls, M. L., Gaulme, P., McKeever, J., **Jackiewicz, J.**, (2016). "What Makes Red Giants Tick? Linking Tidal Forces, Activity, and Solar-Like Oscillations via Eclipsing Binaries". In: American Astronomical Society Meeting Abstracts. Vol. 227. American Astronomical Society Meeting Abstracts, p. 105.06
13. Guzik, J. A., Kosak, K., Bradley, P. A., **Jackiewicz, J.**, (2015). "Amplitude Spectrum Variability in gamma Dor and delta Sct Pulsating Variable Stars Observed by the NASA Kepler Spacecraft". In: IAU General Assembly 22, 2253825, p. 2253825

12. McKeever, J., Gaulme, P., Rawls, M. L., **Jackiewicz, J.**, (2015). "Ages of Red Giants from Asteroseismology". In: American Astronomical Society Meeting Abstracts. Vol. 225. American Astronomical Society Meeting Abstracts, #415.08
11. **How best to utilize time-distance inversions..**
LWS Workshop - Understanding the Dynamics of the Sun using Helioseismology and MHD Simulations. NASA Ames, CA (February 2013)
10. **Oscillatory power observed in flares and filaments.**
NSO Workshop #26: Solar Origins of Space Weather and Space Climate: Connecting the Interior to the Corona. Sunspot, NM (May 2012)
9. **Seismology of small-scale magnetic structures from simulations.**
LWS Workshop - Local Helioseismology: Data Analysis, Modeling and Comparisons. Tucson, AZ (Apr. 2012)
8. **Solar and stellar physics research at New Mexico State Univeristy.**
27th New Mexico Symposium. Socorro, NM (Oct. 2011)
7. **Mass flows around sunspots.**
GONG 2008/SOHO XXI: Solar-stellar dynamos as revealed by helio- and asteroseismology. Boulder, Colorado (Aug. 2008).
6. **Optimal seismic imaging of the solar interior.**
Selected science talk for external review of the Max Planck Institute for Solar System Research. Katlenburg-Lindau, Germany (Aug. 2007).
5. **Travel-time sensitivity kernels and calculating them on the web.**
First HELAS Local Helioseismology Workshop. Nice, France (2006).
4. **Fermi-liquid description of the helical magnetism of MnSi.**
APS March Meeting. Los Angeles, CA (2005).
3. **First-order phase transition in weak ferromagnetic metals.**
APS March Meeting. Montreal, Canada (2004).
2. **Properties of a superconducting instability in a ferromagnetic system.**
APS March Meeting. Austin, TX (2003).
1. **Theoretical investigation of the thermodynamics of superconducting ferromagnets in a mean-field approach.**
APS March Meeting. Indianapolis, IN (2002).
0. **Calculations of the finite temperature dependence of various quantities in the superconducting/ferromagnetic coexistent phase.**
APS March Meeting. Seattle, WA (2001).

Selected outreach talks

14. **The Sky Tonight.**
NMSU Tombaugh Observatory Open House. Las Cruces, NM (Oct. 2014) [public presentation]
13. **Science: THe key to the universe and all the smaller doors along the way.**
NM AMP Conference, MESA High School Workshop. Las Cruces, NM (Oct. 2014) [keynote address]

12. **Sun and seismology.**
Las Cruces Museum of Nature and Science (Sigma Xi sponsor). Las Cruces, NM
 (Sep. 2014) [public presentation]
11. **Science: THe key to the universe and all the smaller doors along the way.**
SCCORE luncheon. Las Cruces, NM (June 2014) [keynote address]
10. **Constraining the solar dynamo using helioseismology..**
NMSU Research Rally. Las Cruces, NM (Apr. 2014) [public presentation]
9. **What's new in astronomy?.**
NMSU Tombaugh Observatory Open House. Las Cruces, NM (Oct. 2013) [public presentation]
8. **Small objects in the solar system.**
NMSU Tombaugh Observatory Open House. Las Cruces, NM (Feb. 2013) [public presentation]
7. **What is the Sun doing now?.**
New Mexico Museum of Space History. Alamagordo, NM (Nov. 2012) [invited public talk]
6. **A taste of seismology of the Sun and stars.**
Astronomical Society of Las Cruces. Las Cruces, NM (Nov. 2011) [invited public talk]
5. **The sky tonight.**
NMSU Tombaugh Observatory Open House. Las Cruces, NM (Sep. 2011) [public presentation]
4. **The sky tonight.**
NMSU Tombaugh Observatory Open House. Las Cruces, NM (Nov. 2010) [public presentation]
3. **Using acoustic sounds to look inside stars.**
NMSU pre-freshman engineering program (PREP). Las Cruces, NM (Jul. 2010) [invited lecture]
2. **The sky tonight.**
NMSU Tombaugh Observatory Open House. Las Cruces, NM (Aug. 2009) [public presentation]
1. **The nearest star, our Sun.**
NMSU Tombaugh Observatory Open House. Las Cruces, NM (Apr. 2009) [public presentation]

Selected poster presentations - * denotes student 1st author

38. **Modeling the effect of meridional flows in time-distance helioseismology: Born vs. ray approximations.**
 Co-author*. Kepler Asteroseismic Consortium Conference Azores, Portugal (July 2016)
37. Clark, J. M., Mason, P. A., Rawls, M. L., **Jackiewicz, J.**, SDSS NMSU FAST, (2016).
 "Radial Velocity Solution for Kepler Eclipsing Binary Stars from SDSS APOGEE". in:
American Astronomical Society Meeting Abstracts. Vol. 228. American Astronomical
 Society Meeting Abstracts, p. 218.12

36. **Jackiewicz, J.**, Boening, V., Roth, M., Kholikov, S., (2016). “Born Sensitivity Kernels in Spherical Geometry for Meridional Flows”. In: AAS/Solar Physics Division Meeting. Vol. 47. AAS/Solar Physics Division Meeting, p. 7.07
35. Mayorga, L., **Jackiewicz, J.**, (2016). “Measuring Doppler Beaming with Kepler and TESS”. in: American Astronomical Society Meeting Abstracts. Vol. 227. American Astronomical Society Meeting Abstracts, p. 138.24
34. Kirk, M. S., Balasubramaniam, K. S., **Jackiewicz, J.**, Gilbert, H., (2016). “The Origin of Sequential Chromospheric Brightening”. In: AAS/Solar Physics Division Meeting. Vol. 47. AAS/Solar Physics Division Meeting, p. 1.04
33. Kholikov, S., **Jackiewicz, J.**, Serebryanskiy, A., (2015). “Deep Solar Meridional Flow Measurements”. In: AAS/AGU Triennial Earth-Sun Summit. Vol. 1. AAS/AGU Triennial Earth-Sun Summit, p. 103.03
32. Rawls, M. L., Gaulme, P., McKeever, J., Orosz, J. A., Latham, D. W., **Jackiewicz, J.**, (2015). “The Double Red Giant Binary With Odd Oscillations”. In: American Astronomical Society Meeting Abstracts. Vol. 225. American Astronomical Society Meeting Abstracts, #345.16
31. Mayorga, L. C., **Jackiewicz, J.**, (2015). “Modelling Phase Curves and Occultations in KOI Light Curve”. In: American Astronomical Society Meeting Abstracts. Vol. 225. American Astronomical Society Meeting Abstracts, p. 257.38
30. **JIVE in NM: Jovian Interiors Velocimetry Experiment**.
Co-author*. New Mexico State University Research and Creative Activities Fair. Las Cruces, NM (Oct. 2014)
29. **Gravity waves in magnetized solar atmospheres from MHD simulations**.
First author. AAS Solar Physics Division. Boston, MA. (June 2014)
28. **Validating time-distance helioseismology with realistic quiet-Sun simulations**.
Co-author*. AAS Solar Physics Division. Boston, MA. (June 2014)
27. Mayorga, L., Gaulme, P., Ule, N., Maldonado, M., **Jackiewicz, J.**, (2014). “Disentangling the Planetary and Stellar Components of Transit Light Curves”. In: American Astronomical Society Meeting Abstracts #223. Vol. 223. American Astronomical Society Meeting Abstracts, p. 347.14
26. **Validating time-distance helioseismology with quiet Sun and sunspot simulations**.
Co-author*. NSO Workshop # 27 - Fifty years of helio- and asteroseismology. Tucson, AZ. (May 2013)
25. **Seismology of small-scale magnetic features using numerical simulations**.
Co-author* NSO Workshop # 27 - Fifty years of helio- and asteroseismology. Tucson, AZ. (May 2013)
24. **The SONG project: Looking inside stars and discovering new planets**.
First author. New Mexico State University Research and Creative Activities Fair. Las Cruces, NM (Oct. 2011)
23. **Unusual pulsation properties of Red Giant Branch stars**.
Co-author*. Fourth SONG Workshop. Charleston, SC (Sep. 2011)
22. **Suitability of the Apache Point Observatory 1m telescope for the SONG spectrograph**.

- First author. Fourth SONG Workshop. Charleston, SC (Sep. 2011)
21. **Solar oscillations and acoustic power measured in H-alpha.**
First author. AAS Solar Physics Division. Las Cruces, NM (June 2011)
 20. **Meridional circulation measurements from 15 years of GONG.**
Co-author. AAS Solar Physics Division. Las Cruces, NM (June 2011)
 19. **The influence of rotation on the pulsation spectra of B-stars.**
Co-author. AAS Solar Physics Division. Las Cruces, NM (June 2011)
 18. **F-mode seismology of solar simulations.**
Co-author*. AAS Solar Physics Division. Las Cruces, NM (June 2011)
 17. **Connecting ephemeral chromospheric brightenings to coronal loops.**
Co-author*. AAS Solar Physics Division. Las Cruces, NM (June 2011)
 16. **Sunspot cycle 24 ascent to peak activity.**
Co-author. AAS Solar Physics Division. Las Cruces, NM (June 2011)
 15. **Characterizing chromospheric flares and sequential brightenings.**
Co-author* AAS Solar Physics Division. Las Cruces, NM (June 2011)
 14. **Coronal Loop detection and seismology.**
Co-author* AAS Solar Physics Division. Las Cruces, NM (June 2011)
 13. **Fields, flares, and forecasts.**
Co-author. AAS Solar Physics Division. Las Cruces, NM (June 2011)
 12. **The pulsation spectra of Kepler B stars.**
Co-author. AAS Meeting #218 Boston, MA (May 2011)
 11. **Observations of 14 δ Scuti and γ Doradus star candidates for the Kepler Guest Observer Program Cycle 1.**
Co-author. Kepler Asteroseismic Consortium Workshop III. Aarhus, Denmark (June 2010)
 10. **SDO science center: Developing physics-based procedures for local helioseismic probing of sunspots and magnetic regions.**
Co-author. AAS Solar Physics Division. (May 2010)
 9. **Multichannel OLA Inversion for Local Helioseismology.**
First author. AAS Solar Physics Division. Boulder, CO (June 2009)
 8. **Seismic Inversion Methods.**
First author. Stellar Pulsation: Challenges for Theory and Observation Sante Fe, NM (May 2009)
 7. **Helioseismic mapping of the solar interior.**
First author. 24th New Mexico Symposium. New Mexico Tech., Socorro, NM (Oct. 2008)
 6. **Peering inside the Sun with helioseismology.**
First author. New Mexico State University Research and Creative Activities Fair. Las Cruces, NM (Oct. 2008)
 5. **2+1 dimensional inversion of helioseismic travel times to infer solar flows.**
First author. HELAS II: Helioseismology, Asteroseismology and MHD Connections. Göttingen, Germany (2007).
 4. **A search for magneto-acoustic mode conversion in sunspot penumbrae.**
Co-author. HELAS II: Helioseismology, Asteroseismology and MHD Connections. Göttingen, Germany (2007).

3. **Helioseismic inversion of f-mode travel times for the study of near-surface flows.**
First author. Modern Solar Facilities-Advanced Solar Science Workshop. Göttingen, Germany (2006).
2. **Inversion of f-mode travel times for flows.**
First author. SOHO 18/GONG 2006/HELAS I: Beyond the Spherical Sun: A New Era of Helio- and Asteroseismology. Sheffield, England (2006).
1. **Sensitivity of solar f-mode travel times for flows.**
First author. SOHO 17: 10 Years of SOHO and Beyond. Giardini Naxos, Italy (2006).
0. **Sensitivity of travel times to flows on the solar surface.**
First author. HMI/AIA Science Teams Meeting. Monterey, CA (2006).