

# Tim Linden

POSTDOCTORAL FELLOW · THE OHIO STATE UNIVERSITY

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## Employment

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### The Ohio State University

Columbus, OH

POSTDOCTORAL FELLOW

July 2015 — Present

- Center for Cosmology and AstroParticle Physics Fellowship (July 2016 — Present)
- Einstein Postdoctoral Fellowship (July 2015 — June 2016)

### University of Chicago

Chicago, IL

POSTDOCTORAL FELLOW

July 2013 — June 2015

- Einstein Postdoctoral Fellowship

## Education

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### University of California, Santa Cruz

Santa Cruz, CA

PH.D. IN PHYSICS

September 2008 - June 2013

- Thesis: *Dark Matter Annihilation in the Galactic Center*
- Advisor: Stefano Profumo

### Northwestern University

Evanston, IL

B.A. IN INTEGRATED SCIENCE PROGRAM, PHYSICS, MATHEMATICS

September 2004 — June 2008

## Publications

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61 articles and letters (55 accepted, 6 under review). Significant publications include:

### Dark Kinetic Heating of Neutron Stars and An Infrared Window On WIMPs, SIMPs, and Pure Higgsinos

PRL 119, 131801

MASHA BARYAKHTAR, JOSEPH BRAMANTE, SHIRLEY WEISHI LI, TIM LINDEN, NIRMAL RAJ

arXiv: 1704.01577

### Using HAWC to Discover Invisible Pulsars

Accepted by PRD

TIM LINDEN, KATIE AUCHETTL, JOE BRAMANTE, ILIAS CHOLIS, KE FANG, DAN HOOPER, TANVI KARWAL, SHIRLEY LI

arXiv: 1703.09704

### Cosmic-Ray Injection from Star-Forming Regions

PRL 117, 111101

ERIC CARLSON, TIM LINDEN, STEFANO PROFUMO

arXiv: 1510.04698

### The Characterization of the Gamma-Ray Signal from the Central Milky Way: A Compelling Case for Annihilating Dark Matter

PDU 12 1 2016

TANSU DAYLAN, DOUG FINKBEINER, DAN HOOPER, TIM LINDEN, STEPHEN PORTILLO, NICK RODD, TRACY SLATYER

arXiv: 1402.6703

### Probing the Pulsar Origin of the Anomalous Positron Fraction with AMS-02 and Atmospheric Cherenkov Telescopes

ApJ 772 18

TIM LINDEN, STEFANO PROFUMO

arXiv: 1304.1791

### On the Origin of the Gamma Rays from the Galactic Center

PRD 84 123005

DAN HOOPER, TIM LINDEN

arXiv: 1110.0006

### The Effect of Starburst Metallicity on X-Ray Binary Formation Pathways

ApJ 725 2 1984

TIM LINDEN, VICKY KALOGERA, JEREMY SEPINSKY, ANDREA PRESTWICH, ANDREAS ZEZAS, JAY GALLAGHER

arXiv: 1005.1639

## Presentations

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31 Conference Presentations and 16 seminars/colloquia over the last three years. Highlights include:

<b>7th International Fermi Symposium</b> <i>Modeling the Galactic Center Gamma-Ray Excess</i>	Garmisch-Partenkirchen October 16, 2017
<b>King's College London Astrophysics Seminar</b> <i>Astrophysical Signatures of Dark Matter Accumulation in Neutron Stars</i>	London, United Kingdom July 6, 2017
<b>Stockholm Oskar Klein Center Colloquium</b> <i>The Rise of the Leptons</i>	Stockholm, Sweden June 20, 2017
<b>2017 April APS Meeting</b> <i>The Galactic Center GeV Excess</i>	Washington D.C. January 30, 2017
<b>Gamma 2016</b> <i>The Galactic Center Environment and Dark Matter Annihilation</i>	Heidelberg, Germany July 13, 2016
<b>227th Meeting of the American Astronomical Society</b> <i>What is the Source of the Galactic Center Gamma-Ray Excess?</i>	Kissimmee, Florida January 6, 2016
<b>University of Illinois, Urbana-Champaign Astronomy Colloquium</b> <i>What is the Source of the Galactic Center Gamma-Ray Excess?</i>	Urbana, IL September 22, 2015
<b>Future of Gamma-Ray Observatories</b> <i>Dark Matter Indirect Detection with Future Space-Based Gamma-Ray Telescopes</i>	Greenbelt, Maryland February 5, 2015
<b>15 Years of Science with Chandra Symposium</b> <i>Modeling High-Mass X-Ray Binary Formation in the Chandra Era</i>	Boston, MA November 21, 2014

## Accepted Proposals

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<b>Novel Diffuse Emission Models for the Central Molecular Zone</b> PRIMARY INVESTIGATOR	Fermi GI Cycle 10 October 2017 — September 2018
<b>Using Fermi Dark Matter Annihilation Constraints to Probe the Early Universe</b> CO-INVESTIGATOR PI: ADRIENNE ERICKCEK	Fermi GI Cycle 10 October 2017 — September 2018
<b>Revealing the Sun's Coronal Magnetic Fields with Gamma Rays</b> CO-INVESTIGATOR PI: ANNIKA PETER	Fermi GI Cycle 10 October 2017 — September 2018
<b>Understanding Gamma-Ray Emission from the Galactic Center: Constraining the Millisecond Pulsar Population</b> CO-INVESTIGATOR PI: FABIO ANTONINI	Fermi GI Cycle 8 October 2015 — September 2016
<b>The Smith Cloud: A High-Velocity Cloud Confined by Dark Matter</b> PRIMARY INVESTIGATOR	Fermi GI Cycle 6 August 2013 — July 2014
<b>A Multiwavelength Model for Novel Physics in the Galactic Center</b> FELLOWSHIP RECIPIENT PI (CHICAGO): DAN HOOPER, PI (OHIO STATE): ANNIKA PETER	Einstein Fellowship July 2013 — June 2016
<b>The Small Magellanic Cloud - A Case Study of X-Ray Populations at Low Metallicity</b> CO-INVESTIGATOR PI: ANDREAS ZEZAS	Chandra Cycle 14 2013
<b>Ultra-Luminous X-Ray Sources in the Most Metal-Poor Galaxies</b> CO-INVESTIGATOR PI: ANDREA PRESTWICH	Chandra Cycle 11 2010

## Honors & Awards

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2012 — 2013	<b>Achievement Rewards for College Scientists (ARCS) Fellowship</b>
2010 — 2011	<b>Fermilab Fellowship in Theoretical Physics</b>
2008 — 2010	<b>Graduate Assistantship in Areas of National Need (GAANN) Fellowship</b>
2008	<b>Distinguished Honors Thesis, Northwestern Department of Physics &amp; Astronomy</b>
2008	<b>Distinguished Honors Thesis, Northwestern Integrated Science Program</b>

## Service & Outreach

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<b>Co-Chair of Local Organizing Committee</b> TEVPA 2016 INTERNATIONAL CONFERENCE	Fall 2017
<b>Organizer and Lecturer</b> 80TH COMPTON LECTURE SERIES	Fall 2014
<b>Speaker</b> HUBBLE IMMERSION CIRCLE WEEKEND	Mar. 2014
<b>Volunteer Scientist</b> ADLER PLANETARIUM	2013—14
<b>Executive Committee Member</b> FERMILAB GRADUATE STUDENT ASSOCIATION	2010—11
<b>Graduate Student Liason</b> FERMILAB USERS EXECUTIVE COMMITTEE	2010—11
<b>Referee</b> PHYSICAL REVIEW LETTERS, PHYSICAL REVIEW D, THE ASTROPHYSICAL JOURNAL, MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS, JOURNAL OF HIGH ENERGY PHYSICS, PHYSICS OF THE DARK UNIVERSE AND PHYSICS LETTERS B	2009 — Present

## Teaching and Lecturing

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<b>80th Compton Lecture Series</b> LECTURER	Faculty Contact: Emil Martinec Fall 2014
<ul style="list-style-type: none"><li>• Produced, organized, and presented nine weekly public lectures to approximately 75 people</li><li>• Lecture Series Title: <i>Shining Light on the Dark Side of the Universe</i></li></ul>	
<b>Physics 116B (Mathematical Methods in Physics)</b> TEACHING ASSISTANT	Primary Instructor: Stefano Profumo Winter 2012
<ul style="list-style-type: none"><li>• Led Weekly Recitation Sessions, held office hours, and graded exams.</li><li>• Topics included Differential Equations, Linear Algebra, Matrices, Eigenvectors and Eigenvalues</li></ul>	
<b>Physics 5A (Classical Mechanics)</b> TEACHING ASSISTANT	Primary Instructor: David Smith Fall 2011
<ul style="list-style-type: none"><li>• Led Laboratory Portion of the Course, held office hours, and graded homework and exams.</li><li>• Topics Included kinematics, conservation of momenta and energy, simple harmonic motion.</li></ul>	

## Co-Advised Students

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### Ben Buckman

GRADUATE STUDENT, THE OHIO STATE UNIVERSITY

Faculty Advisor: Annika Peter

2015 — Present

### Ke Fang

GRADUATE STUDENT, UNIVERSITY OF CHICAGO

Faculty Advisor: Angela Olinto

2014—2015

### Miles Gray

UNDERGRADUATE STUDENT, UNIVERSITY OF CALIFORNIA, SANTA CRUZ

Faculty Advisor: Stefano Profumo

2012—2013

### Eric Carlson

GRADUATE STUDENT, UNIVERSITY OF CALIFORNIA, SANTA CRUZ

Faculty Advisor: Stefano Profumo

2011—2016

## References

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### Stefano Profumo

PROFESSOR OF PHYSICS — UNIVERSITY OF CALIFORNIA, SANTA CRUZ

- profumo@ucsc.edu
- (831) 459-3039

Thesis Advisor

### John Beacom

PROFESSOR OF PHYSICS AND ASTRONOMY — THE OHIO STATE UNIVERSITY

- beacom.7@osu.edu
- (614) 247-8102

### Dan Hooper

SCIENTIST — FERMILAB; ASSOCIATE PROFESSOR OF ASTRONOMY — UNIVERSITY OF CHICAGO

- dhooper@fnal.gov
- (630) 840-3758

### Vicky Kalogera

PROFESSOR OF PHYSICS AND ASTRONOMY — NORTHWESTERN UNIVERSITY

- vicky@northwestern.edu
- (847) 491-5669

### Todd Thompson

PROFESSOR OF ASTRONOMY — THE OHIO STATE UNIVERSITY

- thompson@astronomy.ohio-state.edu
- (614) 292-7971

## Full Presentation List

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Slides from all talks are accessible at <http://trlinden.com/presentations.html>

10-23-17	<b>Three Elephants in the Gamma-Ray Sky</b>	<i>Garmisch, Germany</i>
10-16-17	<b>7th International Fermi-LAT Symposium</b>	<i>Garmisch, Germany</i>
10-13-17	<b>Columbus-Amsterdam-Paris-Stockholm Meeting</b>	<i>Amsterdam, Netherlands</i>
8-8-17	<b>TeVPA 2017</b>	<i>Columbus, OH</i>
7-19-17	<b>Radio Synchrotron Background Conference</b>	<i>Richmond, VA</i>
7-6-17	<b>Imperial College Brown Bag Seminar</b>	<i>London, United Kingdom</i>
7-5-17	<b>King's College Astrophysics Seminar</b>	<i>London, United Kingdom</i>
6-27-17	<b>RISE Astrostatistics Meeting</b>	<i>Heraklion, Greece</i>
6-20-17	<b>Stockholm/Oskar Klein Colloquium</b>	<i>Stockholm, Sweden</i>
6-14-17	<b>LHC Results Forum</b>	<i>Online</i>
6-13-17	<b>GRAPPA Summer Seminar</b>	<i>Amsterdam, Netherlands</i>
5-16-17	<b>Baryon &amp; Lepton Violation</b>	<i>Cleveland, OH</i>
5-11-17	<b>University of Maryland/JSI Special Seminar</b>	<i>College Park, MD</i>
4-25-17	<b>Solar Energetic Particles, Solar Modulation, and Space Radiation</b>	<i>Washington D.C.</i>
3-3-17	<b>Cosmic Rays, Pulsars, and Dark Matter</b>	<i>Santa Fe, NM</i>
1-30-17	<b>2017 APS April Meeting</b>	<i>Washington D.C.</i>
11-03-16	<b>Washington University Theory Seminar</b>	<i>St. Louis, MO</i>
09-15-16	<b>TeVPA 2016</b>	<i>Geneva, Switzerland</i>
08-30-16	<b>2016 Amsterdam Paris Stockholm Meeting</b>	<i>Gouvieux, France</i>
08-16-16	<b>CCAPP Summer Seminar</b>	<i>Columbus, OH</i>
08-10-16	<b>Cosmo 2016</b>	<i>Ann Arbor, MI</i>
07-13-16	<b>Gamma 2016</b>	<i>Heidelberg, Germany</i>
07-07-16	<b>CETUP 2016</b>	<i>Deadwood, SD</i>
06-22-16	<b>MACROS 2016</b>	<i>State College, PA</i>
06-04-16	<b>Workshop on Non-Standard Dark Matter</b>	<i>Warsaw, Poland</i>
05-02-16	<b>Dark Matter in the Milky Way</b>	<i>Mainz, Germany</i>
02-18-16	<b>12th UCLA Dark Matter Meeting</b>	<i>Los Angeles, CA</i>
01-06-16	<b>227th AAS Meeting</b>	<i>Kissimmee, FL</i>
12-14-15	<b>Aachen-Born-Heidelberg-Mainz Workshop</b>	<i>Heidelberg, Germany</i>
12-07-15	<b>Gamma Rays and Dark Matter</b>	<i>Obergurgl, Austria</i>
11-23-15	<b>University of California, Berkeley 4D Seminar</b>	<i>Berkeley, CA</i>
11-16-15	<b>Southern Methodist University High-Energy Seminar</b>	<i>Online Seminar</i>
10-27-15	<b>2015 Einstein Fellows Symposium</b>	<i>Boston, MA</i>
10-06-15	<b>Johns Hopkins University Cosmology Seminar</b>	<i>Baltimore, MD</i>
09-24-15	<b>Texas A&amp;M Cosmology Seminar</b>	<i>College Station, TX</i>
09-22-15	<b>University of Illinois, Urbana-Champaign Astronomy Colloquium</b>	<i>Urbana, IL</i>
06-16-15	<b>CETUP 2015</b>	<i>Deadwood, SD</i>
06-02-15	<b>Recontres de Blois</b>	<i>Blois, France</i>
04-29-15	<b>Virginia Tech Center for Neutrino Physics Seminar</b>	<i>Blacksburg, VA</i>
04-24-15	<b>UC, Santa Cruz SCIPP 35th Anniversary Workshop</b>	<i>Santa Cruz, CA</i>
02-05-15	<b>Future Gamma-ray Observatories Workshop</b>	<i>Greenbelt, MD</i>
01-20-15	<b>Ohio State University CCAPP Seminar</b>	<i>Columbus, OH</i>
11-21-14	<b>15 Years of Chandra Symposium</b>	<i>Boston, MA</i>
10-29-14	<b>2014 Einstein Fellows Symposium</b>	<i>Boston, MA</i>
10-24-14	<b>5th International Fermi Symposium</b>	<i>Nagoya, Japan</i>
10-17-14	<b>Hong Kong University High Energy Physics Seminar</b>	<i>Hong Kong, China</i>
10-15-14	<b>Sungkyunkwan University High Energy Physics Seminar</b>	<i>Suwon, South Korea</i>
10-10-14	<b>IBS/MultiDark Dark Matter Workshop</b>	<i>Daejeon, South Korea</i>
08-28-14	<b>Cosmology 2014</b>	<i>Chicago, IL</i>
08-18-14	<b>High Energy Astrophysics Division Meeting 2014</b>	<i>Chicago, IL</i>

07-04-14	<b>International Conference on High Energy Physics</b>	<i>Valencia, Spain</i>
06-27-14	<b>TeVPA 2014</b>	<i>Amsterdam, Netherlands</i>
06-16-14	<b>University of Illinois, Urbana-Champaign TASC Seminar</b>	<i>Urbana, IL</i>
05-22-14	<b>2014 Sackler Symposium</b>	<i>Boston, MA</i>
05-13-14	<b>Latest Results in Dark Matter Searches</b>	<i>Stockholm, Sweden</i>
04-15-14	<b>Notre Dame High Energy Physics Seminar</b>	<i>South Bend, IN</i>
04-14-14	<b>University of Chicago High-Energy Physics Seminar</b>	<i>Chicago, IL</i>
04-08-14	<b>University of Chicago NSF Site Visit</b>	<i>Chicago, IL</i>
03-13-14	<b>KICP Executive Advisory Board Meeting</b>	<i>Chicago, IL</i>
03-10-14	<b>Fermilab Theory Seminar</b>	<i>Batavia, IL</i>
02-27-14	<b>Dark Matter 2014</b>	<i>Los Angeles, CA</i>
02-18-14	<b>University of Wisconsin, Madison High Energy Physics Seminar</b>	<i>Madison, WI</i>
11-15-13	<b>Kavli Institute for Cosmological Physics Postdoc Symposium</b>	<i>Chicago, IL</i>
10-04-13	<b>IAU 303: The Galactic Center</b>	<i>Santa Fe, NM</i>
07-17-13	<b>Probes of Dark Matter on Galaxy Scales</b>	<i>Monterey, CA</i>
05-14-13	<b>Kavli Institute for Theoretical Physics Dark Matter Workshop</b>	<i>Santa Barbara, CA</i>
04-27-13	<b>New Directions in Nuclear/Particle Physics and Cosmology</b>	<i>Asilomar, CA</i>
04-22-13	<b>University of California, Santa Cruz Cosmology Club</b>	<i>Santa Cruz, CA</i>
03-06-13	<b>Cosmic Frontiers / SNOMASS Workshop</b>	<i>Palo Alto, CA</i>
01-30-13	<b>Closing in on Dark Matter Workshop</b>	<i>Aspen, CA</i>
12-05-12	<b>McGill Astrophysics Seminar</b>	<i>Montreal, Canada</i>
11-16-12	<b>Kavli Institute of Cosmological Physics Seminar</b>	<i>Chicago, IL</i>
11-12-12	<b>Fermilab Astroparticle Seminar</b>	<i>Batavia, IL</i>
11-08-12	<b>Northwestern CIERA Seminar</b>	<i>Evanston, IL</i>
11-02-12	<b>4th International Fermi Symposium</b>	<i>Monterey, CA</i>
10-12-12	<b>Caltech TAPIR Seminar</b>	<i>Pasadena, CA</i>
10-10-12	<b>Irvine High Energy Astrophysics Seminar</b>	<i>Irvine, CA</i>
07-24-12	<b>Identification of Dark Matter</b>	<i>Chicago, IL</i>
05-22-12	<b>UC, Santa Cruz High Energy Physics Seminar</b>	<i>Santa Cruz, CA</i>
05-07-12	<b>Dark Matter Signatures in the Gamma-Ray Sky</b>	<i>Austin, TX</i>
03-05-12	<b>Pan-American Study Institute</b>	<i>Buenos Aires, Argentina</i>
08-04-11	<b>TeVPA 2011</b>	<i>Stockholm, Sweden</i>
07-13-11	<b>BeXRB 2011</b>	<i>Valencia, Spain</i>
06-30-11	<b>Fermilab Cross-Talk</b>	<i>Batavia, IL</i>
05-10-11	<b>3rd International Fermi Symposium</b>	<i>Rome, Italy</i>
03-08-11	<b>ESA Compact Binaries Conference</b>	<i>Vina del Mar, Chile</i>
07-26-10	<b>Identification of Dark Matter 2010</b>	<i>Montpellier, France</i>
04-21-10	<b>UC, Santa Cruz Cosmology Club</b>	<i>Santa Cruz, CA</i>
04-13-10	<b>Caltech TAPIR Seminar</b>	<i>Pasadena, CA</i>
03-03-10	<b>High Energy Astrophysics Division 2010</b>	<i>Waikoloa, HI</i>
11-13-09	<b>California APS Meeting</b>	<i>Monterey, CA</i>
10-13-09	<b>Inagural CCAPP Symposium</b>	<i>Columbus, OH</i>
10-09-09	<b>Northwestern University Astrophysics Seminar</b>	<i>Evanston, IL</i>
09-23-09	<b>Dark Matter and the Interstellar Medium</b>	<i>Batavia, IL</i>
04-26-08	<b>Chicago Area Undergraduate Research Seminar</b>	<i>Chicago, IL</i>

## PUBLICATIONS – TIM LINDEN

- [1] Tim Linden and Benjamin J. Buckman, “Pulsar TeV Halos Explain the TeV Excess Observed by Milagro,” (2017), [arXiv:1707.01905 \[astro-ph.HE\]](#).
- [2] Joseph Bramante, Tim Linden, and Yu-Dai Tsai, “Black Mergers, Quiet Kilonovae, and  $r$ -Process Afterglow Donuts From Dark Matter,” (2017), [arXiv:1706.00001 \[hep-ph\]](#).
- [3] Dan Hooper, Ilias Cholis, and Tim Linden, “TeV Gamma Rays From Galactic Center Pulsars,” (2017), [arXiv:1705.09293 \[astro-ph.HE\]](#).
- [4] Ke Fang, Meng Su, Tim Linden, and Kohta Murase, “IceCube and HAWC constraints on very-high-energy emission from the Fermi bubbles,” (2017), [arXiv:1704.03869 \[astro-ph.HE\]](#).
- [5] Masha Baryakhtar, Joseph Bramante, Shirley Weishi Li, Tim Linden, and Nirmal Raj, “Dark Kinetic Heating of Neutron Stars and An Infrared Window On WIMPs, SIMPs, and Pure Higgsinos,” (2017), [arXiv:1704.01577 \[hep-ph\]](#).
- [6] Tim Linden, Katie Auchettl, Joseph Bramante, Ilias Cholis, Ke Fang, Dan Hooper, Tanvi Karwal, and Shirley Weishi Li, “Using HAWC to Discover Invisible Pulsars,” Submitted to: *Phys. Rev. D* (2017), [arXiv:1703.09704 \[astro-ph.HE\]](#).
- [7] Dan Hooper, Ilias Cholis, Tim Linden, and Ke Fang, “HAWC Observations Strongly Favor Pulsar Interpretations of the Cosmic-Ray Positron Excess,” Submitted to: *JCAP* (2017), [arXiv:1702.08436 \[astro-ph.HE\]](#).
- [8] Ilias Cholis, Dan Hooper, and Tim Linden, “Possible Evidence for the Stochastic Acceleration of Secondary Antiprotons by Supernova Remnants,” *Phys. Rev. D* **95**, 123007 (2017), [arXiv:1701.04406 \[astro-ph.HE\]](#).
- [9] Daryl Haggard, Craig Heinke, Dan Hooper, and Tim Linden, “Low Mass X-Ray Binaries in the Inner Galaxy: Implications for Millisecond Pulsars and the GeV Excess,” *JCAP* **1705**, 056 (2017), [arXiv:1701.02726 \[astro-ph.HE\]](#).
- [10] Tim Linden, “Star-Forming Galaxies Significantly Contribute to the Isotropic Gamma-Ray Background,” (2016), [arXiv:1612.03175 \[astro-ph.HE\]](#).
- [11] Mattia Fornasa *et al.*, “The angular power spectrum of the diffuse gamma-ray emission as measured by the Fermi Large Area Telescope and constraints on its Dark Matter interpretation,” (2016), [arXiv:1608.07289 \[astro-ph.HE\]](#).
- [12] Dan Hooper and Tim Linden, “The Gamma-Ray Pulsar Population of Globular Clusters: Implications for the GeV Excess,” *JCAP* **1608**, 018 (2016), [arXiv:1606.09250 \[astro-ph.HE\]](#).
- [13] Linda M. Carpenter, Russell Colburn, Jessica Goodman, and Tim Linden, “Indirect Detection Constraints on  $s$  and  $t$  Channel Simplified Models of Dark Matter,” *Phys. Rev. D* **94**, 055027 (2016), [arXiv:1606.04138 \[hep-ph\]](#).

- [14] Dan Hooper, Tim Linden, and Alejandro Lopez, “Radio Galaxies Dominate the High-Energy Diffuse Gamma-Ray Background,” *JCAP* **1608**, 019 (2016), [arXiv:1604.08505 \[astro-ph.HE\]](#).
- [15] Tim Linden, Nicholas L. Rodd, Benjamin R. Safdi, and Tracy R. Slatyer, “The High-Energy Tail of the Galactic Center Gamma-Ray Excess,” (2016), [arXiv:1604.01026 \[astro-ph.HE\]](#).
- [16] Eric Carlson, Tim Linden, and Stefano Profumo, “Improved Cosmic-Ray Injection Models and the Galactic Center Gamma-Ray Excess,” *Phys. Rev.* **D94**, 063504 (2016), [arXiv:1603.06584 \[astro-ph.HE\]](#).
- [17] Bridget Bertoni, Dan Hooper, and Tim Linden, “Is The Gamma-Ray Source 3FGL J2212.5+0703 A Dark Matter Subhalo?” *JCAP* **1605**, 049 (2016), [arXiv:1602.07303 \[astro-ph.HE\]](#).
- [18] Joseph Bramante and Tim Linden, “On the  $r$ -Process Enrichment of Dwarf Spheroidal Galaxies,” *Astrophys. J.* **826**, 57 (2016), [arXiv:1601.06784 \[astro-ph.HE\]](#).
- [19] Ilias Cholis, Dan Hooper, and Tim Linden, “A Predictive Analytic Model for the Solar Modulation of Cosmic Rays,” *Phys. Rev.* **D93**, 043016 (2016), [arXiv:1511.01507 \[astro-ph.SR\]](#).
- [20] Eric Carlson, Tim Linden, and Stefano Profumo, “Cosmic-Ray Injection from Star-Forming Regions,” *Phys. Rev. Lett.* **117**, 111101 (2016), [arXiv:1510.04698 \[astro-ph.HE\]](#).
- [21] Tim Linden, “Known Radio Pulsars Do Not Contribute to the Galactic Center Gamma-Ray Excess,” *Phys. Rev.* **D93**, 063003 (2016), [arXiv:1509.02928 \[astro-ph.HE\]](#).
- [22] Ke Fang and Tim Linden, “Cluster Mergers and the Origin of the ARCADE-2 Excess,” *JCAP* **1610**, 004 (2016), [arXiv:1506.05807 \[astro-ph.HE\]](#).
- [23] Ilias Cholis, Carmelo Evoli, Francesca Calore, Tim Linden, Christoph Weniger, and Dan Hooper, “The Galactic Center GeV Excess from a Series of Leptonic Cosmic-Ray Outbursts,” *JCAP* **1512**, 005 (2015), [arXiv:1506.05119 \[astro-ph.HE\]](#).
- [24] Bridget Bertoni, Dan Hooper, and Tim Linden, “Examining The Fermi-LAT Third Source Catalog In Search Of Dark Matter Subhalos,” *JCAP* **1512**, 035 (2015), [arXiv:1504.02087 \[astro-ph.HE\]](#).
- [25] Dan Hooper and Tim Linden, “On The Gamma-Ray Emission From Reticulum II and Other Dwarf Galaxies,” *JCAP* **1509**, 016 (2015), [arXiv:1503.06209 \[astro-ph.HE\]](#).
- [26] Manoj Kaplinghat, Tim Linden, and Hai-Bo Yu, “Galactic Center Excess in  $\gamma$  Rays from Annihilation of Self-Interacting Dark Matter,” *Phys. Rev. Lett.* **114**, 211303 (2015), [arXiv:1501.03507 \[hep-ph\]](#).
- [27] Tassos Fragos, Tim Linden, Vassiliki Kalogera, and Panos Sklias, “On the Formation of Ultraluminous X-ray Sources with Neutron Star Accretors: the Case of M82 X-2,” *Astrophys. J.* **802**, L5 (2015), [arXiv:1501.02679 \[astro-ph.HE\]](#).
- [28] Ke Fang and Tim Linden, “Anisotropy of the extragalactic radio background from dark matter annihilation,” *Phys. Rev.* **D91**, 083501 (2015), [arXiv:1412.7545 \[astro-ph.HE\]](#).
- [29] Dan Hooper, Tim Linden, and Philipp Mertsch, “What Does The PAMELA Antiproton Spectrum Tell Us



- About Dark Matter?” *JCAP* **1503**, 021 (2015), [arXiv:1410.1527 \[astro-ph.HE\]](#).
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