Stanford

Peter Graham

Wells Family Director of the Stanford Institute for Theoretical Physics and Dr. William S. & Carol A. Davies Professor of Physics

CONTACT INFORMATION

- **Administrative Contact**

  LITP

  Email litpadmin@stanford.edu

Bio

BIO

What physics lies beyond the Standard Model and how can we discover it?

Professor Graham is broadly interested in theoretical physics beyond the Standard Model which often involves cosmology, astrophysics, general relativity, and even atomic physics. The Standard Model leaves many questions unanswered including the nature of dark matter and the origins of the weak scale, the cosmological constant, and the fundamental fermion masses. These clues are a guide to building new theories beyond the Standard Model. He recently proposed a new solution to the hierarchy problem which uses dynamical relaxation in the early universe instead of new physics at the weak scale.

Professor Graham is also interested in inventing novel experiments to discover such new physics, frequently using techniques from astrophysics, condensed matter, and atomic physics. He is a proposer and co-PI of the Cosmic Axion Spin Precession Experiment (CASPEr) and the DM Radio experiment. CASPEr uses nuclear magnetic resonance techniques to search for axion dark matter. DM Radio uses high precision magnetometry and electromagnetic resonators to search for hidden photon and axion dark matter. He has also proposed techniques for gravitational wave detection using atom interferometry.

Current areas of focus:

Theory beyond the Standard Model

Dark matter models and detection

Novel experimental proposals for discovering new physics such as axions and gravitational waves

Understanding results from experiments ranging from the LHC
to early universe cosmology

CAREER HISTORY:

After completing his undergraduate work at Harvard, Peter Graham received his PhD from Stanford in 2007. He was a postdoctoral research associate for one year with the particle theory group at SLAC and then took a postdoctoral position with the Stanford Institute for Theoretical Physics in the Physics Department. Graham began his appointment as Assistant Professor in the Department of Physics in September 2010.

Honors and Awards:

Frontiers of Science Award in Theoretical Physics from the International Congress of Basic Science 2024
Simons Investigator 2021
New Horizons Prize in Physics from Breakthrough Foundation 2017
DOE Early Career Award 2014
Terman Fellowship, Stanford

ACADEMIC APPOINTMENTS

- Professor, Physics

ADMINISTRATIVE APPOINTMENTS

- Wells Family Director, Leinweber Institute for Theoretical Physics, (2025- present)
- Director of Undergraduate Studies, Stanford Physics Department, (2018- present)
- Associate Director, Stanford Institute for Theoretical Physics, (2018-2025)
- Terman Fellowship, Stanford University, (2013-2013)
- Assistant Professor of Physics, Stanford Institute for Theoretical Physics, (2010-2017)
- Postdoctoral Scholar, Stanford Institute for Theoretical Physics, (2008-2010)
- Visiting Member, Institute for Advanced Study, (2008-2008)
- Research Associate, SLAC National Accelerator Laboratory, (2007-2008)
- Graduate Fellowship, Mellam Family Foundation, (2006-2007)
- Fellowship, Achievement Rewards for College Scientists, (2005-2006)
- National Defense Science and Engineering Graduate Fellowship, Department of Defense, (2002-2005)

HONORS AND AWARDS

- Frontiers of Science Award in Theoretical Physics, International Congress of Basic Science (2024)
- Simons Investigator, Simons Foundation (2021)
- New Horizons Prize in Physics, Breakthrough Prize Foundation (2017)

- DOE Early Career Award, Department of Energy (2014)
- Hellman Faculty Scholar, Hellman Fellows Fund (2013)
- Phi Beta Kappa, Harvard University (2002)
- Sanderson Award for top senior physics student, Harvard University (2002)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, Fermi Telescope Collaboration
- Chair, Physics Department Graduate Qualifying Exam Committee, Stanford University (2012 - 2013)

PROFESSIONAL EDUCATION

- Ph.D., Stanford University , Physics (2007)
- A.M., Harvard University , Physics (2002)
- A.B., Harvard University , Physics (2002)

LINKS

- Publications on INSPIRE: http://inspirehep.net/search?ln=en&p=find+a+peter+w+graham&of=hb&action_search=Search&sf=earliestdate&so=d

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

What physics lies beyond the Standard Model and how can we discover it?

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Novel experimental proposals for discovering new physics such as axions and gravitational waves

Understanding results from experiments ranging from the LHC

to early universe cosmology

Teaching

COURSES

2025-26

- General Relativity: PHYSICS 262 (Aut)

2023-24

- General Relativity: PHYSICS 262 (Aut)

2022-23

- Mechanics: PHYSICS 41 (Aut)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Chiara Brandenstein, Sanha Cheong, Joseph Curti, Shayarneel Kundu, Aidan Reilly, Lillian Santos-Olmsted, Gowri Sundaresan, Matt Withers

Postdoctoral Faculty Sponsor

Marios Galanis, Aurora Ireland, Maximilian Ruhdorfer, Erwin Tanin

Doctoral Dissertation Advisor (AC)

Anita Dunsmore, Yawen Xiao

Doctoral Dissertation Co-Advisor (AC)

Alessandro Russo

Doctoral (Program)

Shoaib Akhtar, Han Hiller, Oliver Hitchcock, Zach Hulcher, Balint Kurgyis, Noah Meyer, Rory O'Dwyer, Guglielmo Panelli, Sephora Ruppert, Tony Zhang

Publications

PUBLICATIONS

- **Detecting white dwarf binary mergers with gravitational waves** *PHYSICAL REVIEW D*
  Sala, G., Brandenstein, C., Baum, S., Graham, P. W.
  2026; 113 (12)
- **New interpretations of the cosmological preference for a negative neutrino mass** *PHYSICAL REVIEW D*
  Graham, P. W., Green, D., Meyers, J.
  2026; 113 (3)
- **Robust bounds on MACHOs from the faintest galaxies** *PHYSICAL REVIEW D*
  Graham, P. W., Ramani, H., Ruhdorfer, M.
  2026; 113 (2)

- **Revisiting isocurvature bounds on the minimal QCD axion** *JOURNAL OF HIGH ENERGY PHYSICS*
  Graham, P. W., Racco, D.
  2025

- **Terrestrial Very-Long-Baseline Atom Interferometry: summary of the second workshop** *EPJ QUANTUM TECHNOLOGY*
  Abdalla, A., Abe, M., Abend, S., Abidi, M., Aidelsburger, M., Alibabaei, A., Allard, B., Antoniadis, J., Arduini, G., Augst, N., Balamatsias, P., Balaz, A., Banks, et al
  2025; 12 (1)

- **Electromagnetic modeling and science reach of DMRadio-m3** *PHYSICAL REVIEW D*
  Alshirawi, A., Ankel, V., Bartram, C., Begin, J., Bell, C., Benabou, J. N., Brouwer, L., Chaudhuri, S., Cho, H., Corbin, J., Craddock, W., Cuadra, S., Droster, et al
  2025; 112 (5)

- **Highly excited electron cyclotron for QCD axion and dark-photon detection** *PHYSICAL REVIEW D*
  Fan, X., Gabrielse, G., Graham, P. W., Ramani, H., Wong, S. S. Y., Xiao, Y.
  2025; 111 (7)

- **Constraints on long-ranged interactions between dark matter and the Standard Model** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*
  Bogorad, Z., Graham, P. W., Ramani, H.
  2025

- **Enhancing direct detection of Higgsino dark matter** *PHYSICAL REVIEW D*
  Graham, P. W., Ramani, H., Wong, S. S. Y.
  2025; 111 (5)

- **Coherent self-interactions of dark matter in the Bullet Cluster** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*
  Bogorad, Z., Graham, P. W., Ramani, H.
  2025

- **Constraints on dark matter from dynamical heating of stars in ultrafaint dwarfs. I. MACHOs and primordial black holes** *PHYSICAL REVIEW D*
  Graham, P. W., Ramani, H.
  2024; 110 (7)

- **Constraints on dark matter from dynamical heating of stars in ultrafaint dwarfs. II. Substructure and the primordial power spectrum** *PHYSICAL REVIEW D*
  Graham, P. W., Ramani, H.
  2024; 110 (7)

- **Gravitational wave measurement in the mid-band with atom interferometers** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*
  Baum, S., Bogorad, Z., Graham, P. W.
  2024

- **Hunt for magnetic signatures of hidden-photon and axion dark matter in the wilderness** *PHYSICAL REVIEW D*
  Sulai, I. A., Kalia, S., Arza, A., Bloch, I. M., Munoz, E., Fabian, C., Fedderke, M. A., Forseth, M., Garthwaite, B., Graham, P. W., Griffith, W., Helgren, E., Hermanson, et al
  2023; 108 (9)

- **Minimal warm inflation (vol 2020, 034, 2020)** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*
  Berghaus, K., Graham, P. W., Kaplan, D. E.
  2023

- **One-Electron Quantum Cyclotron as a Milli-eV Dark-Photon Detector.** *Physical review letters*
  Fan, X., Gabrielse, G., Graham, P. W., Harnik, R., Myers, T. G., Ramani, H., Sukra, B. A., Wong, S. S., Xiao, Y.
  2022; 129 (26): 261801

- **Cold atoms in space: community workshop summary and proposed road-map** *EPJ QUANTUM TECHNOLOGY*
  Alonso, I., Alpigiani, C., Altschul, B., Araujo, H., Arduini, G., Arlt, J., Badurina, L., Balaz, A., Bandarupally, S., Barish, B. C., Barone, M., Barsanti, M., Bass, et al

2022; 9 (1)

- **Searching for dark clumps with gravitational-wave detectors** *PHYSICAL REVIEW D*
  Baum, S., Fedderke, M. A., Graham, P. W.
  2022; 106 (6)
- **Astrometric gravitational-wave detection via stellar interferometry** *PHYSICAL REVIEW D*
  Fedderke, M. A., Graham, P. W., Macintosh, B., Rajendran, S.
  2022; 106 (2)
- **Asteroids for mu Hz gravitational-wave detection** *PHYSICAL REVIEW D*
  Fedderke, M. A., Graham, P. W., Rajendran, S.
  2022; 105 (10)
- **Earth as a transducer for axion dark-matter detection** *PHYSICAL REVIEW D*
  Arza, A., Fedderke, M. A., Graham, P. W., Kimball, D., Kalia, S.
  2022; 105 (9)
- **Millicharged Dark Matter Detection with Ion Traps** *PRX QUANTUM*
  Budker, D., Graham, P. W., Ramani, H., Schmidt-Kaler, F., Smorra, C., Ulmer, S.
  2022; 3 (1)
- **Search for dark-photon dark matter in the SuperMAG geomagnetic field dataset** *PHYSICAL REVIEW D*
  Fedderke, M. A., Graham, P. W., Kimball, D., Kalia, S.
  2021; 104 (9)
- **Warming up cold inflation** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*
  DeRocco, W., Graham, P. W., Kalia, S.
  2021
- **Earth as a transducer for dark-photon dark-matter detection** *PHYSICAL REVIEW D*
  Fedderke, M. A., Graham, P. W., Kimball, D., Kalia, S.
  2021; 104 (7)
- **Dark energy radiation** *PHYSICAL REVIEW D*
  Berghaus, K., Graham, P. W., Kaplan, D. E., Moore, G. D., Rajendran, S.
  2021; 104 (8)
- **Matter-wave Atomic Gradiometer Interferometric Sensor (MAGIS-100)** *QUANTUM SCIENCE AND TECHNOLOGY*
  Abe, M., Adamson, P., Borcean, M., Bortoletto, D., Bridges, K., Carman, S. P., Chattopadhyay, S., Coleman, J., Curfman, N. M., DeRose, K., Deshpande, T., Dimopoulos, S., Foot, et al
  2021; 6 (4)
- **Search for dark photon dark matter: Dark E field radio pilot experiment** *PHYSICAL REVIEW D*
  Godfrey, B., Tyson, J., Hillbrand, S., Balajthy, J., Polin, D., Tripathi, S., Klomp, S., Levine, J., MacFadden, N., Kolner, B. H., Smith, M. R., Stucky, P., Phipps, et al
  2021; 104 (1)
- **Gravity gradient noise from asteroids** *PHYSICAL REVIEW D*
  Fedderke, M. A., Graham, P. W., Rajendran, S.
  2021; 103 (10)
- **Search for Axionlike Dark Matter Using Solid-State Nuclear Magnetic Resonance.** *Physical review letters*
  Aybas, D., Adam, J., Blumenthal, E., Gramolin, A. V., Johnson, D., Kleyheeg, A., Afach, S., Blanchard, J. W., Centers, G. P., Garcon, A., Engler, M., Figueroa, N. L., Sendra, et al
  2021; 126 (14): 141802
- **Storage ring probes of dark matter and dark energy** *PHYSICAL REVIEW D*
  Graham, P. W., Haciomeroglu, S., Kaplan, D. E., Omarov, Z., Rajendran, S., Semertzidis, Y. K.
  2021; 103 (5)

- **AEDGE: Atomic experiment for dark matter and gravity exploration in space** *EXPERIMENTAL ASTRONOMY*
  Bertoldi, A., Bongs, K., Bouyer, P., Buchmueller, O., Canuel, B., Caramete, L., Chiofalo, M., Coleman, J., De Roeck, A., Ellis, J., Graham, P. W., Haehnelt, M. G., Hees, et al
  2021
- **Gravity Probe Spin: Prospects for measuring general-relativistic precession of intrinsic spin using a ferromagnetic gyroscope** *PHYSICAL REVIEW D*
  Fadeev, P., Wang, T., Band, Y. B., Budker, D., Graham, P. W., Sushkov, A. O., Kimball, D.
  2021; 103 (4)
- **Exploring the robustness of stellar cooling constraints on light particles** *PHYSICAL REVIEW D*
  DeRocco, W., Graham, P. W., Rajendran, S.
  2020; 102 (7)
- **Muons in Supernovae: Implications for the Axion-Muon Coupling.** *Physical review letters*
  Bollig, R., DeRocco, W., Graham, P. W., Janka, H. T.
  2020; 125 (5): 051104
- **Muons in Supernovae: Implications for the Axion-Muon Coupling** *PHYSICAL REVIEW LETTERS*
  Bollig, R., DeRocco, W., Graham, P. W., Janka, H.
  2020; 125 (5)
- **White dwarf bounds on charged massive particles** *PHYSICAL REVIEW D*
  Fedderke, M. A., Graham, P. W., Rajendran, S.
  2020; 101 (11)
- **AEDGE: Atomic Experiment for Dark Matter and Gravity Exploration in Space** *EPJ QUANTUM TECHNOLOGY*
  El-Neaj, Y., Alpigiani, C., Amairi-Pyka, S., Araujo, H., Balaz, A., Bassi, A., Bathe-Peters, L., Battelier, B., Belic, A., Bentine, E., Bernabeu, J., Bertoldi, A., Bingham, et al
  2020; 7 (1)
- **Minimal warm inflation** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*
  Berghaus, K., Graham, P. W., Kaplan, D. E.
  2020
- **Constraining Primordial Black Hole Abundance with the Galactic 511 keV Line.** *Physical review letters*
  DeRocco, W., Graham, P. W.
  2019; 123 (25): 251102
- **Constraining Primordial Black Hole Abundance with the Galactic 511 keV Line** *PHYSICAL REVIEW LETTERS*
  DeRocco, W., Graham, P. W.
  2019; 123 (25)
- **SAGE: A proposal for a space atomic gravity explorer** *EUROPEAN PHYSICAL JOURNAL D*
  Tino, G. M., Bassi, A., Bianco, G., Bongs, K., Bouyer, P., Cacciapuoti, L., Capozziello, S., Chen, X., Chiofalo, M. L., Derevianko, A., Ertmer, W., Gaaloul, N., Gill, et al
  2019; 73 (11)
- **Supernova signals of light dark matter** *PHYSICAL REVIEW D*
  DeRocco, W., Graham, P. W., Kasen, D., Marques-Tavares, G., Rajendran, S.
  2019; 100 (7)
- **Constraints on bosonic dark matter from ultralow-field nuclear magnetic resonance.** *Science advances*
  Garcon, A., Blanchard, J. W., Centers, G. P., Figueroa, N. L., Graham, P. W., Jackson Kimball, D. F., Rajendran, S., Sushkov, A. O., Stadnik, Y. V., Wickenbrock, A., Wu, T., Budker, D.
  2019; 5 (10): eaax4539
- **Relaxation of the cosmological constant** *PHYSICAL REVIEW D*
  Graham, P. W., Kaplan, D. E., Rajendran, S.
  2019; 100 (1)

- **Axion dark matter detection with CMB polarization** *PHYSICAL REVIEW D*
  Fedderke, M. A., Graham, P. W., Rajendran, S.
  2019; 100 (1)
- **Search for Axionlike Dark Matter with a Liquid-State Nuclear Spin Comagnetometer** *PHYSICAL REVIEW LETTERS*
  Wu, T., Blanchard, J. W., Centers, G. P., Figueroa, N. L., Garcon, A., Graham, P. W., Kimball, D., Rajendran, S., Stadnik, Y. V., Sushkov, A. O., Wickenbrock, A., Budker, D.
  2019; 122 (19): 191302
- **Observable signatures of dark photons from supernovae** *JOURNAL OF HIGH ENERGY PHYSICS*
  DeRocco, W., Graham, P. W., Kasen, D., Marques-Tavares, G., Rajendran, S.
  2019
- **Wu et al. Reply.** *Physical review letters*
  Wu, T. n., Blanchard, J. W., Centers, G. P., Figueroa, N. L., Garcon, A. n., Graham, P. W., Kimball, D. F., Rajendran, S. n., Stadnik, Y. V., Sushkov, A. O., Wickenbrock, A. n., Budker, D. n.
  2019; 123 (16): 169002
- **White dwarfs as dark matter detectors** *PHYSICAL REVIEW D*
  Graham, P. W., Janish, R., Narayan, V., Rajendran, S., Riggins, P.
  2018; 98 (11)
- **Stochastic axion scenario** *PHYSICAL REVIEW D*
  Graham, P. W., Scherlis, A.
  2018; 98 (3)
- **Search for light scalar dark matter with atomic gravitational wave detectors** *PHYSICAL REVIEW D*
  Arvanitaki, A., Graham, P. W., Hogan, J. M., Rajendran, S., Van Tilburg, K.
  2018; 97 (7)
- **Spin precession experiments for light axionic dark matter** *PHYSICAL REVIEW D*
  Graham, P. W., Kaplan, D. E., Mardon, J., Rajendran, S., Terrano, W. A., Trahms, L., Wilkason, T.
  2018; 97 (5)
- **Born again universe** *PHYSICAL REVIEW D*
  Graham, P. W., Kaplan, D. E., Rajendran, S.
  2018; 97 (4)
- **Localizing gravitational wave sources with single-baseline atom interferometers** *PHYSICAL REVIEW D*
  Graham, P. W., Jung, S.
  2018; 97 (2)
- **The cosmic axion spin precession experiment (CASPEr): a dark-matter search with nuclear magnetic resonance** *QUANTUM SCIENCE AND TECHNOLOGY*
  Garcon, A., Aybas, D., Blanchard, J. W., Centers, G., Figueroa, N. L., Graham, P. W., Kimball, D., Rajendran, S., Sendra, M., Sushkov, A. O., Trahms, L., Wang, T., Wickenbrock, et al
  2018; 3 (1)
- **Resonant mode for gravitational wave detectors based on atom interferometry** *PHYSICAL REVIEW D*
  Graham, P. W., Hogan, J. M., Kasevich, M. A., Rajendran, S.
  2016; 94 (10)
- **Vector dark matter from inflationary fluctuations** *PHYSICAL REVIEW D*
  Graham, P. W., Mardon, J., Rajendran, S.
  2016; 93 (10)
- **Dark matter direct detection with accelerometers** *PHYSICAL REVIEW D*
  Graham, P. W., Kaplan, D. E., Mardon, J., Rajendran, S., Terrano, W. A.
  2016; 93 (7)

- **Cosmological Relaxation of the Electroweak Scale.** *Physical review letters*
  Graham, P. W., Kaplan, D. E., Rajendran, S.
  2015; 115 (22): 221801
- **Testing long-distance modifications of gravity to 100 astronomical units** *PHYSICAL REVIEW D*
  Buscaino, B., DeBra, D., Graham, P. W., Gratta, G., Wiser, T. D.
  2015; 92 (10)
- **Cosmological Relaxation of the Electroweak Scale** *PHYSICAL REVIEW LETTERS*
  Graham, P. W., Kaplan, D. E., Rajendran, S.
  2015; 115 (22)
- **Radio for hidden-photon dark matter detection** *PHYSICAL REVIEW D*
  Chaudhuri, S., Graham, P. W., Irwin, K., Mardon, J., Rajendran, S., Zhao, Y.
  2015; 92 (7)
- **Dark matter triggers of supernovae** *PHYSICAL REVIEW D*
  Graham, P. W., Rajendran, S., Varela, J.
  2015; 92 (6)
- **Towards a Bullet-proof test for indirect signals of dark matter** *PHYSICAL REVIEW D*
  Graham, P. W., Rajendran, S., Van Tilburg, K., Wiser, T. D.
  2015; 91 (10)
- **Experimental Searches for the Axion and Axion-Like Particles** *ANNUAL REVIEW OF NUCLEAR AND PARTICLE SCIENCE, VOL 65*
  Graham, P. W., Irastorza, I. G., Lamoreaux, S. K., Lindner, A., van Bibber, K. A.
  2015; 65: 485-514
- **Parametrically enhanced hidden photon search** *PHYSICAL REVIEW D*
  Graham, P. W., Mardon, J., Rajendran, S., Zhao, Y.
  2014; 90 (7)
- **Supersymmetric crevices: Missing signatures of R-parity violation at the LHC** *PHYSICAL REVIEW D*
  Graham, P. W., Rajendran, S., Saraswat, P.
  2014; 90 (7)
- **Exploring eternal stability with the simple harmonic universe** *JOURNAL OF HIGH ENERGY PHYSICS*
  Graham, P. W., Horn, B., Rajendran, S., Torroba, G.
  2014
- **Proposal for a Cosmic Axion Spin Precession Experiment (CASPEr)** *PHYSICAL REVIEW X*
  Budker, D., Graham, P. W., Ledbetter, M., Rajendran, S., Sushkov, A. O.
  2014; 4 (2)
- **Displaced vertices from R-parity violation and baryogenesis** *PHYSICAL REVIEW D*
  Barry, K., Graham, P. W., Rajendran, S.
  2014; 89 (5)
- **A simple harmonic universe** *JOURNAL OF HIGH ENERGY PHYSICS*
  Graham, P. W., Horn, B., Kachru, S., Rajendran, S., Torroba, G.
  2014
- **New observables for direct detection of axion dark matter** *PHYSICAL REVIEW D*
  Graham, P. W., Rajendran, S.
  2013; 88 (3)
- **New method for gravitational wave detection with atomic sensors.** *Physical review letters*
  Graham, P. W., Hogan, J. M., Kasevich, M. A., Rajendran, S.
  2013; 110 (17): 171102-?

- **New method for gravitational wave detection with atomic sensors.** *Physical review letters*
  Graham, P. W., Hogan, J. M., Kasevich, M. A., Rajendran, S.
  2013; 110 (17): 171102-?
- **Semiconductor probes of light dark matter** *PHYSICS OF THE DARK UNIVERSE*
  Graham, P. W., Kaplan, D. E., Rajendran, S., Walters, M. T.
  2012; 1 (1-2): 32-49
- **New measurements with stopped particles at the LHC** *PHYSICAL REVIEW D*
  Graham, P. W., Howe, K., Rajendran, S., Stolarski, D.
  2012; 86 (3)
- **Displaced Supersymmetry** *JOURNAL OF HIGH ENERGY PHYSICS*
  Graham, P. W., Kaplan, D. E., Rajendran, S., Saraswat, P.
  2012
- **Limits on large extra dimensions based on observations of neutron stars with the Fermi-LAT** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*
  Ajello, M., Baldini, L., Barbiellini, G., Bastieri, D., Bechtol, K., Bellazzini, R., Berenji, B., Bloom, E. D., Bonamente, E., Borgland, A. W., Bregeon, J., Brigida, M., Bruel, et al
  2012
- **Fundamental Physics at the Intensity Frontier**
  Hewett, J. L., et al
  2012
- **Semiconductor Probes of Light Dark Matter** *Physics of the Dark Universe*
  Graham, P. W., Kaplan, D. E., Rajendran, S., Walters, M. T.
  2012; 1 (32)
- **Axion dark matter detection with cold molecules** *PHYSICAL REVIEW D*
  Graham, P. W., Rajendran, S.
  2011; 84 (5)
- **Reply to "Comment on 'Atomic gravitational wave interferometric sensor'"** *PHYSICAL REVIEW D*
  Dimopoulos, S., Graham, P. W., Hogan, J. M., Kasevich, M. A., Rajendran, S.
  2011; 84 (2)
- **An atomic gravitational wave interferometric sensor in low earth orbit (AGIS-LEO)** *GENERAL RELATIVITY AND GRAVITATION*
  Hogan, J. M., Johnson, D. M., Dickerson, S., Kovachy, T., Sugarbaker, A., Chiow, S., Graham, P. W., Kasevich, M. A., Saif, B., Rajendran, S., Bouyer, P., Seery, B. D., Feinberg, et al
  2011; 43 (7): 1953-2009
- **Dark Matter Searches with Astroparticle Data** *ANNUAL REVIEW OF ASTRONOMY AND ASTROPHYSICS, VOL 49*
  Porter, T. A., Johnson, R. P., Graham, P. W.
  2011; 49: 155-194
- **Luminous dark matter** *PHYSICAL REVIEW D*
  Feldstein, B., Graham, P. W., Rajendran, S.
  2010; 82 (7)
- **Observing the dimensionality of our parent vacuum** *PHYSICAL REVIEW D*
  Graham, P. W., Harnik, R., Rajendran, S.
  2010; 82 (6)
- **Exothermic dark matter** *PHYSICAL REVIEW D*
  Graham, P. W., Harnik, R., Rajendran, S., Saraswat, P.
  2010; 82 (6)
- **Little solution to the little hierarchy problem: A vectorlike generation** *PHYSICAL REVIEW D*

Graham, P. W., Ismail, A., Rajendran, S., Saraswat, P.
2010; 81 (5)

- **Domino theory of flavor** *PHYSICAL REVIEW D*
  Graham, P. W., Rajendran, S.
  2010; 81 (3)
- **Decaying dark matter as a probe of unification and TeV spectroscopy** *PHYSICAL REVIEW D*
  Arvanitaki, A., Dimopoulos, S., Dubovsky, S., Graham, P. W., Harnik, R., Rajendran, S.
  2009; 80 (5)
- **Gravitational wave detection with atom interferometry** *PHYSICS LETTERS B*
  Dimopoulos, S., Graham, P. W., Hogan, J. M., Kasevich, M. A., Rajendran, S.
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