



## Thomas Shutt

Professor of Particle Physics and Astrophysics

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### Bio

#### ACADEMIC APPOINTMENTS

- Professor, Particle Physics and Astrophysics

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### Teaching

#### STANFORD ADVISEES

##### Doctoral Dissertation Advisor (AC)

Zhixuan (Abi) Li, Liam Sherman, Bahrudin Trbalic, Qihua Wang

##### Doctoral Dissertation Co-Advisor (AC)

Ruben Coronel

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### Publications

#### PUBLICATIONS

- **Signal yields, energy resolution, and recombination fluctuations in liquid xenon** *PHYSICAL REVIEW D*  
Akerib, D. S., Alsum, S., Araujo, H. M., Bai, X., Bailey, A. J., Balajthy, J., Beltrame, P., Bernard, E. P., Bernstein, A., Biesiadzinski, T. P., Boulton, E. M., Bramante, R., BRAS, et al  
2017; 95 (1)
- **Results from a Search for Dark Matter in the Complete LUX Exposure** *PHYSICAL REVIEW LETTERS*  
Akerib, D. S., Alsum, S., Araujo, H. M., Bai, X., Bailey, A. J., Balajthy, J., Beltrame, P., Bernard, E. P., Bernstein, A., Biesiadzinski, T. P., Boulton, E. M., Bramante, R., BRAS, et al  
2017; 118 (2)
- **REVIEW OF PARTICLE PHYSICS Particle Data Group** *CHINESE PHYSICS C*  
Patrignani, C., Agashe, K., Aielli, G., Amsler, C., Antonelli, M., Asner, D. M., Baer, H., Banerjee, S., Barnett, R. M., Basaglia, T., Bauer, C. W., Beatty, J. J., Belousov, et al  
2016; 40 (10)
- **FPGA-based trigger system for the LUX dark matter experiment** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*  
Akerib, D. S., Araujo, H. M., Bai, X., Bailey, A. J., Balajthy, J., Beltrame, P., Bernard, E. P., Bernstein, A., Biesiadzinski, T. P., Boulton, E. M., Bradley, A., Bramante, R., Cahn, et al  
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- **Tritium calibration of the LUX dark matter experiment** *PHYSICAL REVIEW D*  
Akerib, D. S., Araujo, H. M., Bai, X., Bailey, A. J., Balajthy, J., Beltrame, P., Bernard, E. P., Bernstein, A., Biesiadzinski, T. P., Boulton, E. M., Bradley, A., Bramante, R., Cahn, et al

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- **Improved Limits on Scattering of Weakly Interacting Massive Particles from Reanalysis of 2013 LUX Data** *PHYSICAL REVIEW LETTERS*  
Akerib, D. S., Araujo, H. M., Bai, X., Bailey, A. J., Balajthy, J., Beltrame, P., Bernard, E. P., Bernstein, A., Biesiadzinski, T. P., Boulton, E. M., Bradley, A., Bramante, R., Cahn, et al  
2016; 116 (16)
- **Results on the Spin-Dependent Scattering of Weakly Interacting Massive Particles on Nucleons from the Run 3 Data of the LUX Experiment** *PHYSICAL REVIEW LETTERS*  
Akerib, D. S., Araujo, H. M., Bai, X., Bailey, A. J., Balajthy, J., Beltrame, P., Bernard, E. P., Bernstein, A., Biesiadzinski, T. P., Boulton, E. M., Bradley, A., Bramante, R., Cahn, et al  
2016; 116 (16)
- **Low-threshold analysis of CDMS shallow-site data** *PHYSICAL REVIEW D*  
Akerib, D. S., Attisha, M. J., Baudis, L., Bauer, D. A., Bolozdynya, A. I., Brink, P. L., Bunker, R., Cabrera, B., Caldwell, D. O., Chang, C. L., Clarke, R. M., Cooley, J., Crisler, et al  
2010; 82 (12)
- **Design and performance of a modular low-radioactivity readout system for cryogenic detectors in the CDMS experiment** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*  
Akerib, D. S., Barnes, P. D., Brink, P. L., Cabrera, B., Clarke, R. M., Gaitskill, R. J., Golwala, S. R., Huber, M. E., Kurylowicz, M., Mandic, V., Martinis, J. M., Meunier, P., Mirabolfathi, et al  
2008; 591 (3): 476-489
- **Installation and commissioning of the CDMSII experiment at Soudan** *10th International Workshop on Low Temperature Detectors*  
Akerib, D. S., Alvaro-Dean, J., Armel, M. S., Attisha, M., Baudis, L., Bauer, D. A., Bolozdynya, A. I., Brink, P. L., Bunker, R., Cabrera, B., Caldwell, D. O., Castle, J. P., Chang, et al  
ELSEVIER SCIENCE BV.2004: 116-19
- **New results from the Cryogenic Dark Matter Search experiment** *PHYSICAL REVIEW D*  
Akerib, D. S., Alvaro-Dean, J., Armel, M. S., Attisha, M. J., Baudis, L., Bauer, D. A., Bolozdynya, A. I., Brink, P. L., Bunker, R., Cabrera, B., Caldwell, D. O., Castle, J. P., Chang, et al  
2003; 68 (8)
- **Results from the 1998-1999 Runs of the Cryogenic Dark Matter Search** *5th International UCLA Symposium on Sources and Detection of Dark Matter and Dark Energy in the Universe*  
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- **Present status of the cryogenic dark matter search (CDMS II) experiment** *23rd International Conference on Low Temperature Physics (LT23)*  
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- **Exclusion limits on the WIMP-nucleon cross section from the cryogenic dark matter search** *PHYSICAL REVIEW D*  
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2002; 66 (12)
- **Present results and future goals of the Cryogenic Dark Matter Search** *9th International Workshop on Low Temperature Detectors*  
Perera, T. A., Abrams, D., Akerib, D. S., Bauer, D. A., Bolozdynya, A., Brink, P. L., Bunker, R., Cabrera, B., Caldwell, D. O., Castle, J. P., Chang, C., Clarke, R. M., Crisler, et al  
AMER INST PHYSICS.2002: 485-488
- **Status of CDMS search for dark matter WIMPs** *20th Texas Symposium on Relativistic Astrophysics*  
Cabrera, B., Abusaidi, R., Akerib, D. S., Barnes, P. D., Bauer, D. A., Bolozdynya, A., Brink, P. L., Bunker, R., Caldwell, D. O., Castle, J. P., Chang, C., Clarke, R. M., Colling, et al  
AMER INST PHYSICS.2001: 107-118
- **Exclusion limits on the WIMP-nucleon cross section from the Cryogenic Dark Matter Search** *PHYSICAL REVIEW LETTERS*

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- **Exclusion limits on the WIMP-nucleon scattering cross-section from the Cryogenic Dark Matter Search** *8th International Workshop on Low-Temperature Detectors (LTD-8)*  
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- **Preliminary limits on the WIMP-nucleon cross section from the Cryogenic Dark Matter Search (CDMS)** *5th International Workshop on Topics in Astroparticle and Underground Physics (TAUP 97)*  
Akerib, D. S., Barnes, P. D., Bauer, D. A., Brink, P. L., Cabrera, B., Caldwell, D. O., Clarke, R. M., Da Silva, A., Davies, A. K., Dougherty, B. L., Irwin, K. D., Gaitskill, R. J., Golwala, et al  
ELSEVIER SCIENCE BV.1999: 64–68
- **Results and status of the Cryogenic Dark Matter Search (CDMS)** *Workshop on Primordial Black Holes and Hawking Radiation/3rd International Symposium on Sources and Detection of Dark Matter in the Universe*  
Schnee, R. W., Akerib, D. S., Barnes, P. D., Bauer, D. A., Brink, P. L., Cabrera, B., Caldwell, D. O., Clarke, R. M., Colling, P., Crisler, M. B., Dasilva, A., Davies, A. K., Dougherty, et al  
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- **Progress of the cryogenic dark matter search (CDMS) experiment.** *2nd Symposium on Dark Matter in the Universe*  
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- **Installation of the Cryogenic Dark Matter Search (CDMS)** *6th International Workshop on Low Temperature Detectors (LTD6)*  
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- **THE 1ST CRYOGENIC DARK-MATTER EXPERIMENT** *5TH INTERNATIONAL WORKSHOP ON LOW TEMPERATURE DETECTORS (LTD-5)*  
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