

# UNM PUBLICATIONS

## PUBLICATION LIST

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### *First Author Works: Nguyen Phan*

GEM-BASED CCD DETECTOR FOR DIRECTIONAL DARK MATTER DETECTION

**N. S. Phan**, R. J. Lauer, E. R. Lee, D. Loomba, J. A. J. Matthews, E. H. Miller, arXiv:1510.02170.

FIRST OPTICAL MEASUREMENT OF  $^{55}\text{Fe}$  SPECTRUM IN A TPC

**N. S. Phan**, R. J. Lauer, E. R. Lee, D. Loomba, J. A. J. Matthews, E. H. Miller (in preparation for journal submission, on arXiv by end of October).

THE NOVEL PROPERTIES OF  $\text{SF}_6$  FOR DIRECTIONAL DARK MATTER EXPERIMENTS

**N. S. Phan**, R. Lafler, R. J. Lauer, E. R. Lee, D. Loomba, J. A. J. Matthews, E. H. Miller (in preparation for journal submission, included with application).

DIRECTIONAL SIGNAL IN A PROTOTYPE DARK MATTER DETECTOR

**N. S. Phan**, *et al.* (in preparation for journal submission).

NOVEL READOUT DESIGN FOR HIGH-RESOLUTION TRACKING TPC

**N. S. Phan**, *et al.* (in preparation for journal submission).

OPTICAL TRACK IMAGING IN AN ELECTRONEGATIVE GAS MIXTURE

**N. S. Phan**, *et al.* (in preparation for journal submission).

### *Collaboration Works*

A REVIEW ON THE DISCOVERY REACH OF DIRECTIONAL DARK MATTER DETECTION

J. B. R. Battat, J. Billard, N. Bozorgnia, G. Gelmini, P. Gondolo, A. M. Green, B. J. Kavanagh, S. Lee, D. Loomba, F. Mayet, J. Monroe, B. Morgan, C. A. J. O'Hare, A. H. G. Peter, **N. Phan**, S. E. Vahsen (in preparation for submission to Physics Reports).

FIRST BACKGROUND-FREE LIMIT FROM A DIRECTIONAL DARK MATTER EXPERIMENT: RESULTS FROM A FULLY FIDUCIALISED DRIFT DETECTOR

J. B. R. Battat, J. Brack, E. Daw, A. Dorofeev, A. C. Ezeribe, J. -L. Gauvreau, M. Gold, J. L. Harton, J. M. Landers, E. Law, E. R. Lee, D. Loomba, A. Lumnah, J. A. J. Matthews, E. H. Miller, A. Monte, F. Mouton, A. St J. Murphy, S. M. Paling, **N. Phan**, M. Robinson, S. W. Sadler, A. Scarff, F. G. Schuckman II, D. P. Snowden-Ifft, N. J. C. Spooner, S. Telfer, S. E. Vahsen, D. Walker, D. Warner, L. Yuriev, *Phys. Dark Univ.* 9-10 (2015) 1-7.

REDUCING DRIFT BACKGROUNDS WITH A SUBMICRON ALUMINIZED-MYLAR CATHODE

J. B. R. Battat, E. Daw, A. Dorofeev, A. C. Ezeribe, J. R. Fox, J. -L. Gauvreau, M. Gold, L. Harmon, J. Harton, R. Lafler, J. Landers, R.J. Lauer, E. R. Lee, D. Loomba, A. Lumnah, J. Matthews, E. H. Miller, F. Mouton, A. St J. Murphy, S. M. Paling, **N. Phan**, S. W. Sadler, A. Scarff, F. G. Schuckman II, D. Snowden-Ifft, N. J.C. Spooner, D. Walker, *Nucl. Instrum. Meth. A* 794 (2015) 33-46.

BACKGROUND ASSAY AND REJECTION IN DRIFT

J. Brack, E. Daw, A. Dorofeev, A. C. Ezeribe, J.-L. Gauvreau, M. Gold, J. L. Harton, R. Lafler, R. Lauer, E. R. Lee, D. Loomba, J. A. J. Matthews, E. H. Miller, A. Monte, A. Murphy, S. M. Paling, **N. Phan**, S. W. Sadler, A. Scarff, D. P. Snowden-Ifft, N. J. C. Spooner, S. Telfer, D. Walker, M. Williams, L. Yuriev, *Proceedings of the*

TAUP 2013 Conference, Phys. Procedia 61 (2015) 130-137.

#### MEASUREMENT OF OPTICAL ATTENUATION IN ACRYLIC LIGHT GUIDES FOR A DARK MATTER DETECTOR

M. Bodmer, **N. Phan**, M. Gold, D. Loomba, J. A. J. Matthews, K. Rielage, JINST 9 P02002 (2014).

#### RADON IN THE DRIFT-II DIRECTIONAL DARK MATTER TPC: EMANATION, DETECTION AND MITIGATION

J. B. R. Battat, J. Brack, E. Daw, A. Dorofeev, A. C. Ezeribe, J. R. Fox, J.-L. Gauvreau, M. Gold, L. J. Harmon, J. L. Harton, J. M. Landers, E. R. Lee, D. Loomba, J. A. J. Matthews, E. H. Miller, A. Monte, A. StJ. Murphy, S. M. Paling, **N. Phan**, M. Pipe, M. Robinson, S. W. Sadler, A. Scarff, D. P. Snowden-Ifft, N. J. C. Spooner, S. Telfer, D. Walker, D. Warner, L. Yuriev, JINST 9 P11004 (2014).

#### LONG-TERM STUDY OF BACKGROUNDS IN THE DRIFT-II DIRECTIONAL DARK MATTER EXPERIMENT

J. Brack, E. Daw, A. Dorofeev, A. C. Ezeribe, J. R. Fox, J.-L. Gauvreau, M. Gold, L. Harmon, J. L. Harton, R. Lafler, J. M. Landers, R. Lauer, E. R. Lee, D. Loomba, J. A. J. Matthews, E. H. Miller, A. Monte, A. StJ. Murphy, S. M. Paling, **N. Phan**, M. Pipe, M. Robinson, S. W. Sadler, A. Scarff, D. P. Snowden-Ifft, N. J. C. Spooner, S. Telfer, D. Walker, L. Yuriev, JINST 9 P07021 (2014).

#### THE DRIFT DARK MATTER EXPERIMENTS

E. Daw, A. Dorofeev, J. R. Fox, J.-L. Gauvreau, C. Ghag, L. J. Harmon, J. L. Harton, M. Gold, E. R. Lee, D. Loomba, E. H. Miller, A. StJ. Murphy, S. M. Paling, J. M. Landers, **N. Phan**, M. Pipe, K. Pushkin, M. Robinson, S. W. Sadler, D. P. Snowden-Ifft, N. J. C. Spooner, D. Walker, D. Warner, Proceedings of the 3rd International conference on Directional Detection of Dark Matter (CYGNUS 2011), arXiv:1110.0222.