

PUBLICATION LIST

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1. *Time-integrated directional detection of dark matter*
C. A. J. O'Hare, **B. J. Kavanagh**, A. M. Green
Submitted to PRD, [arXiv:1708.02959](#)
2. *Prospects for determining the particle/antiparticle nature of WIMP dark matter with direct detection experiments*
B. J. Kavanagh, F. S. Queiroz, W. Rodejohann, C. E. Yaguna
Submitted to JHEP, [arXiv:1706.07819](#)
Code available [here](#)
3. *Probing Leptophilic Dark Sectors with Hadronic Processes*
F. D'Eramo, **B. J. Kavanagh**, P. Panci
Phys. Lett. B 771 (2017) 339-348, [arXiv:1702.00016](#)
4. *Signatures of Earth-scattering in the direct detection of Dark Matter*
B. J. Kavanagh, R. Catena, C. Kouvaris
JCAP 01 (2017) 012, [arXiv:1611.05453](#)
Code available [here](#)
5. *Reconstructing the three-dimensional local dark matter velocity distribution*
B. J. Kavanagh, C. A. J. O'Hare
Phys. Rev. D 94, 123009 (2016), [arXiv:1609.08630](#)
6. *You can hide but you have to run: direct detection with vector mediators*
F. D'Eramo, **B. J. Kavanagh**, P. Panci
JHEP 08 (2016) 111, [arXiv:1605.04917](#)
Code available [here](#)
7. *A review of the discovery reach of directional Dark Matter detection*
F. Mayet, A. M. Green, J. B. R. Battat, J. Billard, N. Bozorgnia, G. B. Gelmini, P. Gondolo, **B. J. Kavanagh**, S. K. Lee, D. Loomba, J. Monroe, B. Morgan, C. A. J. O'Hare, A. H. G. Peter, N. S. Phan, S. E. Vahsen
Physics Reports 627 (2016) 1, [arXiv:1602.03781](#)
Highlighted in [Physics Reports](#)
8. *Re-examining the significance of the 750 GeV diphoton excess at ATLAS*
B. J. Kavanagh
arXiv pre-print (2016), [arXiv:1601.07330](#)
Featured on [Symmetries](#) and [Résonances](#)
9. *New directional signatures from the non-relativistic effective field theory of dark matter*
B. J. Kavanagh
Phys. Rev. D 92, 023513 (2015), [arXiv:1505.07406](#)
10. *Discretising the velocity distribution for directional dark matter experiments*
B. J. Kavanagh
JCAP 07 (2015) 019, [arXiv:1502.04224](#)
11. *Probing WIMP particle physics and astrophysics with direct detection and neutrino telescope data*
B. J. Kavanagh, M. Fornasa, A. M. Green
Phys. Rev. D 91, 103533 (2015), [arXiv:1410.8051](#)
12. *Parametrizing the local dark matter speed distribution: a detailed analysis*
B. J. Kavanagh
Phys. Rev. D 89, 085026 (2014), [arXiv:1312.1852](#)

13. *WIMP physics with ensembles of direct-detection experiments*
A. H. G. Peter, V. Gluscevic, A. M. Green, **B. J. Kavanagh**, S. K. Lee
[Phys. Dark Universe 5-6 \(2014\) 45-74](#), [arXiv:1310.7039](#)
14. *Model independent determination of the dark matter mass from direct detection experiments*
B. J. Kavanagh and A. M. Green
[Phys. Rev. Lett. 111, 031302 \(2013\)](#), [arXiv:1303.6868](#)
Featured in [Phys.org](#)
15. *Improved determination of the WIMP mass from direct detection data*
B. J. Kavanagh and A. M. Green
[Phys. Rev. D 86, 065027 \(2012\)](#), [arXiv:1207.2039](#)