

Curriculum Vitae – James H. C. Scargill

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Department of Physics,
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Employment

Sept. 2016 – present
Postdoctoral Research Scholar, UC Davis, Center for Quantum Mathematics and Physics (QMAP)

Education

Oct. 2012 – July 2016
DPhil in Theoretical Physics, University of Oxford,
Supervisors: Prof. John March-Russell and Prof. Pedro Ferreira,
funding from UK Science & Technology Facilities Council
Oct. 2008 – June 2012
MPhys Hons. (1st class) in Physics, University of Oxford

Awards

Sept. 2014 Graduate Teaching and Research Scholarship, Oriel College, University of Oxford

Publications

de Sitter Branes in a Flat Bulk of Massive Gravity
Nemanja Kaloper and JHCS
[arXiv:1808.01506](https://arxiv.org/abs/1808.01506)

Quantum Cosmic No-Hair Theorem and Inflation
Nemanja Kaloper and JHCS
[arXiv:1802.09554](https://arxiv.org/abs/1802.09554)

Barnacles and Gravity
JHCS
JHEP 1709, 080 (2017), [arXiv:1705.09010](https://arxiv.org/abs/1705.09010)

Strong-coupling scales and the graph structure of multi-gravity theories
JHCS and Johannes Noller
JHEP 1601, 029 (2016), [arXiv:1511.02877](https://arxiv.org/abs/1511.02877)

An anisotropic universe due to dimension-changing vacuum decay
JHCS
JCAP 1508, 045 (2015), [arXiv:1506.07100](https://arxiv.org/abs/1506.07100)

The decoupling limit of Multi-Gravity: Multi-Galileons, Dualities and More
Johannes Noller and JHCS
JHEP 1505, 034 (2015), [arXiv:1503.02700](https://arxiv.org/abs/1503.02700)

Cycles of interactions in multi-gravity theories

JHCS, Johannes Noller, and Pedro G. Ferreira

JHEP 1412, 160 (2014), [arXiv:1410.7774](#)

Interacting spin-2 fields in the Stueckelberg picture

Johannes Noller, JHCS, and Pedro G. Ferreira,

JCAP 1402, 007 (2014), [arXiv:1311.7009](#)

Cosmology with Eddington-inspired Gravity

JHCS, Maximo Banados, and Pedro G. Ferreira

Phys. Rev. D **86**, 103533 (2012), [arXiv:1210.1521](#)

Inferring core-collapse supernova physics with gravitational waves

J. Logue, C. D. Ott, I. S. Heng, P. Kalmus, and JHCS

Phys. Rev. D **86**, 044023 (2012), [arXiv:1202.3256](#)

Talks

- Sept. 2017 University of Nottingham
 Unusual Vacuum Decay Events in the Early Universe
- Aug. 2017 Cosmo '17 conference
 (as above)
- Jun. 2017 GRC Particle Physics Conference at HKUST
 (as above)
- Oct. 2015 University of the Basque Country
 An anisotropic universe due to dimension-changing vacuum decay
- Oct. 2015 UC Davis
 (as above)
- Oct. 2015 Stanford University
 (as above)
- Sept. 2015 Case Western Reserve University
 (as above)
- Sept. 2015 Columbia University
 (as above)
- May 2014 University of Nottingham
 Interacting spin-2 fields in the Stueckelberg picture
- Sept. 2013 7th Aegean Summer School, Paros, Greece
 (as above)

Teaching

- 2013 – 2016 Tutor for *General Relativity & Cosmology* 3rd year undergraduate course, New College/University College/Oriel College, University of Oxford
- 2014 – 2016 Tutor for *Quantum Mechanics* 2nd year undergraduate course, Oriel college, University of Oxford

Other Experience

Have reviewed papers for various journals, including PRL, EPJC, PLB, JCAP, and Universe.

Helped conduct interviews for undergraduate physics admissions at New College, University of Oxford, 2012, 2013, 2014.