

# Publications

Andrew J. Tolley

## Articles currently in preparation

- (25) C. de Rham, J. Khoury and **Andrew J. Tolley**, “Tensing the ghost in cascading gravity”.
- (24) R. Holman, **Andrew J. Tolley** and J. Lin, “Constraints on Initial State Non-Gaussianity”.

## Published and recently submitted papers

- (23) **Andrew J. Tolley** and M. Wyman, “The Gelaton Scenario: Equilateral non-Gaussianity from multi-field dynamics,” arXiv:0910.1853 [hep-th]. Submitted to Physical Review Letters.
- (22) C. de Rham, J. Khoury and **Andrew J. Tolley**, “Flat 3-Brane with Tension in Cascading Gravity,” Phys. Rev. Lett. **103**, 161601 (2009) [arXiv:0907.0473 [hep-th]].
- (21) **Andrew J. Tolley** and M. Wyman, “Stochastic tunneling in DBI inflation”, JCAP **0910**, 006 (2009) [arXiv:0809.1100 [hep-th]].
- (20) N. Afshordi and **Andrew J. Tolley**, “Primordial non-gaussianity, statistics of collapsed objects, and the Integrated Sachs-Wolfe effect,” Phys. Rev. D **78**, 123507 (2008) [arXiv:0806.1046 [astro-ph]].
- (19) **Andrew J. Tolley** and Mark Wyman, “Stochastic Inflation revisited: DBI inflation and non-slow roll statistics,” JCAP **0804**, 028 (2008) [arXiv:0801.1854 [hep-th]].
- (18) C. de Rham, G. Dvali, S. Hofmann, J. Khoury, **Andrew J. Tolley**, “Cascading Gravity and Degravitation,” JCAP **0802**, 011 (2008) [arXiv:0712.2821 [hep-th]].
- (17) C. de Rham, G. Dvali, S. Hofmann, J. Khoury, O. Pujolas, M. Redi, **Andrew J. Tolley**, “Cascading Gravity: Extending the Dvali-Gabadadze-Porrati Model to Higher Dimension,” Phys. Rev. Lett. **100**, 251603 (2008) [arXiv:0711.2072 [hep-th]].
- (16) R. Holman and **Andrew J. Tolley**, “Enhanced Non-Gaussianity from Excited Initial States,” JCAP **0805**, 001 (2008) [arXiv:0710.1302 [hep-th]].

- (15) **Andrew J. Tolley**, C. P. Burgess, C. de Rham, D. Hoover, “Exact Wave Solutions to 6d Gauged Supergravity,” *JHEP* **0807**, 075 (2008), [arXiv:0710.3769 [hep-th]].
- (14) **Andrew J. Tolley** and Daniel H. Wesley, “Scale-invariance in expanding and contracting universes from two-field models,” *JCAP* **0705**, 006 (2007) [arXiv:hep-th/0703101].
- (13) C. P. Burgess, C. de Rham, D. Hoover, D. Mason and **A. J. Tolley**, “Kicking the rugby ball: Perturbations of 6D gauged chiral supergravity,” *JCAP* **0702**, 009 (2007) [arXiv:hep-th/0610078].
- (12) **A. J. Tolley**, C. P. Burgess, C. de Rham and D. Hoover, “Scaling solutions to 6D gauged chiral supergravity,” *New J. Phys.* **8**, 324 (2006) [arXiv:hep-th/0608083] (*invited article*).
- (11) Claudia de Rham and **Andrew J. Tolley**, “Mimicking Lambda with a spin-two ghost condensate,” *JCAP* **0607**, 004 (2006) [arXiv:hep-th/0605122].
- (10) **Andrew J. Tolley**, C. P. Burgess, D. Hoover and Y. Aghababaie, “Bulk Singularities and the Effective Cosmological Constant for Higher Co-dimension Branes,” *JHEP* **0603**, 091 (2006) [arXiv:hep-th/0512218].
- (9) Claudia de Rham and **Andrew J. Tolley**, “Gravitational Waves in a Codimension Two Braneworld”, *JCAP* **0602**, 003 (2006) [arXiv:hep-th/0511138].
- (8) **Andrew J. Tolley** and Daniel Wesley, “String Pair Production in a Time-dependent gravitational field,” *Phys. Rev. D* **72**, 124009 (2005) [arXiv:hep-th/0509151].
- (7) **Andrew J. Tolley**, “String propagation through a big crunch/big bang transition,” *Phys. Rev. D* **73** (2006), 123522 [arXiv:hep-th/0505158].
- (6) **A. J. Tolley**, N. Turok and P. J. Steinhardt, “Cosmological perturbations in a big crunch/big bang space-time,” *Phys. Rev. D* **69**, 106005 (2004) [arXiv:hep-th/0306109]. **TopCite 50+**
- (5) **A. J. Tolley** and N. Turok, “Quantum fields in a big crunch/big bang spacetime,” *Phys. Rev. D* **66**, 106005 (2002) [arXiv:hep-th/0204091]. **TopCite 50+**
- (4) **A. J. Tolley** and N. Turok, “Quantization of the massless minimally coupled scalar field and the dS/CFT correspondence,” arXiv:hep-th/0108119.
- (3) **A. J. Tolley**, “A new model for intense laser-atom interactions in helium,” *J. Phys. B: At. Mol. Opt. Phys.* **32**, No 14, 3449-3461 (1999).

- (2) C. G. Tinney and **A. J. Tolley**, “Searching for Weather in Brown Dwarfs,”  
MNRAS, **304**, 119 (1999) [arXiv:astro-ph/9809165].
- (1) R. D. Jeffries and **A. J. Tolley**, “X-ray emission and low-mass stars in the young open cluster  
NGC 2547,” MNRAS, **300**, 331 (1998).

### Review Articles and Reports

- (2) *Invited Review Article:*  
“Non-gaussianity and the Inflationary Initial State”, **Andrew J. Tolley** and R. Holman.  
To appear in “Testing the Gaussianity and Statistical Isotropy of the Universe”  
Guest Editors: D. Huterer, E. Komatsu, S. Shandera, **Advances in Astronomy**.
- (1) “Non-Gaussianity as a Probe of the Physics of the Primordial Universe and the Astrophysics  
of the Low Redshift Universe” [White paper for Astro 2010 Decadal Survey],  
E. Komatsu *et al.*, arXiv:0902.3759 [astro-ph.CO].

### Press Releases

**Anglo Australian Observatory** Press Release describing results of “Searching for Weather in  
Brown Dwarfs,” C. G. Tinney and **A. J. Tolley**, MNRAS, **304**, 119 (1999).

See AAO online article

A Gray Day on a Brown Dwarf, by Govert Schilling

**Science** 2 October 1998 282: 25-27 [DOI: 10.1126/science.282.5386.25].

See Science online article