

# ALIREZA HOJJATI

## Publication List

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### In progress:

1. **A. Hojjati** et al.,  
*Cross-correlation of Planck tSZ and RCSLenS Galaxy Weak Lensing Maps: Implications for ICM Baryonic Physics and Cosmology*
2. J. Harnois-Deraps, T. Troster, **A. Hojjati** et al.,  
*RCSLenS: Cosmology Prospects from Cross-Correlation with CMB Lensing*
3. H. Hildebrandt et al.,  
*RCSLenS: The Red-sequence Cluster Lensing Survey*
4. B. Moraes et al.,  
*The thermal Sunyaev-Zel'dovich emission of SDSS DR8 redMaPPer galaxy clusters*
5. H. Tanimura et al.,  
*Estimate of Electron Density and Temperature in Filaments between SDSS Luminos Red Galaxies*

### Published:

1. **A. Hojjati** et al.,  
*Searching for Scalar Gravitational Interactions in Current and Future Cosmological Data*  
Phys. Rev. D 93, 043531, arXiv:1511.05962.
2. G.B. Zhao et al.,  
*The extended Baryon Oscillation Spectroscopic Survey (eBOSS): a cosmological forecast*  
MNRAS 457 (2016) 2377, arXiv:1510.08216.
3. **A. Hojjati** & E. V. Linder,  
*CMB Lensing and Scale Dependent New Physics*  
Phys. Rev. D 93, 023528, arXiv:1507.08292.
4. **A. Hojjati** et al.,  
*Dissecting the thermal Sunyaev-Zeldovich-gravitational lensing cross-correlation with hydrodynamical simulations,*  
JCAP10(2015)047, arXiv:1412.6051.
5. K. Liao et al.,  
*Strong Lens Time Delay Challenge: II. Results of TDC1* ,  
ApJ, 800, 11, arXiv:1409.1254.
6. **A. Hojjati** & E. V. Linder,  
*Next Generation Strong Lensing Time Delay Estimation with Gaussian Processes*

- Phys. Rev. D 90, 123501, arXiv:1408.5143.
7. Y.Z. Ma, L. Van Waerbeke, G. Hinshaw, **A. Hojjati** & D. Scott,  
*Probing the diffuse baryon distribution with the lensing-tSZ cross-correlation*,  
2015, JCAP, 09, 046, arXiv:1404.4808 .
  8. **A. Hojjati**, L. Pogosian, A. Silvestri & G.B. Zhao,  
*Observable physical modes of modified gravity*,  
Phys. Rev. D 89, 083505 (2014), arXiv:1312.5309.
  9. G. Dobler, C. Fassnacht, T. Treu, P. J. Marshall, K. Liao, **A. Hojjati**, E. Linder  
& N. Rumbaugh, *Strong Lens Time Delay Challenge: I. Experimental Design*,  
ApJ, 799, 168, arXiv:1310.4830.
  10. S. Asaba, C. Hikage, K. Koyama, G. Zhao, **A. Hojjati** & L. Pogosian,  
*Principal Component Analysis of Modified Gravity using Weak Lensing and Peculiar Velocity Measurements*,  
JCAP08(2013)029, arXiv:1306.2546.
  11. **A. Hojjati**, E. V. Linder & Johan Samsing,  
*New constraints on the early expansion history*,  
Phys. Rev. Lett 111, 041301 (2013), arXiv:1304.3724.
  12. **A. Hojjati**, A. G. Kim & E. V. Linder,  
*Robust Strong Lensing Time Delay Estimation* ,  
Phys. Rev. D 87, 123512 (2013), arXiv:1304.0309.
  13. Y. Wang, D. Wands, L. Xu, J. De-Santiago & **A. Hojjati**,  
*Cosmological constraints on a decomposed Chaplygin gas*,  
Phys. Rev. D 87, 083503 (2013), arXiv:1301.5315.
  14. **A. Hojjati**,  
*Degeneracies in parametrized modified gravity models*,  
JCAP01(2013)009, arXiv:1210.3903.
  15. **A. Hojjati**, L. Pogosian, A. Silvestri & S. Talbot,  
*Practical solutions for perturbed  $f(R)$  gravity*,  
Phys. Rev. D 86, 123503 (2012), arXiv:1210.6880.
  16. **A. Hojjati**, G. Zhao, L. Pogosian, A. Silvestri, R. Crittenden & K. Koyama,  
*Cosmological tests of General Relativity: a principal component analysis*,  
Phys. Rev. D 85, 043508 (2012), arXiv:1111.3960.
  17. **A. Hojjati**, L. Pogosian & G. Zhao,  
*Testing gravity with CAMB and CosmoMC*,  
JCAP 1108:005, arXiv:1106.4543.
  18. **A. Hojjati**, L. Pogosian & G. Zhao,  
*Detecting Features in the Dark Energy Equation of State: A Wavelet Approach*,

JCAP04(2010)007, arXiv:0912.4843v1.

19. A. Akhtari Zavareh, **A. Hojjati** & B. Mirza,  
*Generation of large scale magnetic fields by coupling to curvature and dilaton field*,  
Prog.Theor.Phys.117:803-822 (2007) arXiv:0707.3493v1.