

Current Position

Oct.2013 - **Post-doctoral Research Associate**, Brookhaven National Lab, NY, USA.
“Cosmological Implications of BAO measurements and Lyman- α forest analysis”
Member of the SDSS-III/SDSS-IV collaboration. Dr. A. Slosar
Interests BAO, CMB, Ly- α forest; Dark Energy, Inflation; Data analysis.
[Website](#), [LinkedIn](#), [GitHub](#)

Publications

- * For further details and citations: [Google Scholar](#), [Inspire](#), [Research gate](#)
- [1] Michael Blomqvist *et al.* *Broadband distortion modeling in Lyman- α forest BAO fitting.* Submitted to JCAP. [arXiv:1504.06656](#)
 - [2] Rupert A.C. Croft *et al.* *Large-scale clustering of Lyman-alpha emission intensity from SDSS/BOSS.* Submitted to MNRAS. [arXiv:1504.04088](#)
 - [3] Ozgur Akarsu, Tekin Dereli, JAV. *A divergence-free parametrization for dynamical dark energy.* JCAP, 1506 (2015) 06, 049. [arXiv:1501.07598](#)
 - [4] Shadab Alam *et al.* *The Eleventh and Twelfth Data Releases of the Sloan Digital Sky Survey: Final Data from SDSS-III.* ApJs 219 (2015) 1, 12. [arXiv:1501.00963](#)
 - [5] JAV, Mariana Carrillo, Gabriel German, Alfredo Herrera, J.C. Hidalgo. *Constraining Hybrid Natural Inflation with recent CMB data.* JCAP 1502 (2015) 02, 039. [arXiv:1411.6616](#)
 - [6] Éric Aubourg *et al.* *Cosmological Implications of baryon acoustic oscillation (BAO) measurements.* Accepted to PRD. [arXiv:1411.1074](#)
 - [7] JAV *et al.* *Reciprocity invariance of the Friedmann equation, missing matter and double dark energy.* Submitted to PRD. [arXiv:1208.2542](#)
 - [8] JAV, M. Bridges, Yin-Zhe Ma, M.P. Hobson. *Constraints on the Tensor-to-Scalar ratio for non-power law models.* JCAP 08(001) 2013, [arXiv:1303.4014](#)
 - [9] JAV, M.P. Hobson, M. Bridges, A.N. Lasenby. *Reconstruction of the Dark Energy equation of state.* JCAP, 09(020), 2012. [arXiv:1205.0847](#)
 - [10] JAV, M.P. Hobson, M. Bridges, A.N. Lasenby. *Model selection applied to reconstruction of the Primordial Power Spectrum.* JCAP 006(106), 2012. [arXiv:1203.1252](#)
 - [11] JAV, A.N. Lasenby, M.P. Hobson, M. Bridges. *A Bayesian study of the primordial power spectrum from a novel closed universe.* MNRAS 422, 1948-1956, 2011. [arXiv:1103.4619](#)
 - [12] Tonatiuh Matos, José-Rubén Luévano, Israel Quiros, L. Arturo Urena-López, JAV. *Dynamics of scalar field dark matter with a cosh potential.* PRD 80, 123521, 2009. [arXiv:0906.0396](#)
 - [13] Tamé González, Tonatiuh Matos, Israel Quiros, JAV. *Self-interacting Scalar Field Trapped in a Randall-Sundrum Braneworld.* PLB 676, 161-167, 2009. [arXiv:0812.1734](#)
 - [14] Tonatiuh Matos, JAV, Juan Magana. *ϕ^2 as Dark Matter.* MNRAS 393, 1359-1369, 2008. [arXiv:0806.0683](#)

- [15] Tonatiuh Matos, José-Rubén Luevano, Hugo Gracia Compeán, JAV. *An alternative Interpretation for the Moduli Fields of the Cosmology Associated to Type IIB Supergravity with Fluxes*. IJMPA 23, 1949-1962, 2008. [arXiv:0511098](#)

In Preparation [\(link\)](#)

- [1p] BOSS Collaboration. *The clustering of galaxies in the SDSS-III Baryon Oscillation Spectroscopic Survey: Baryon Acoustic Oscillations in the Data Release 12 Galaxy Sample*.
- [2p] JAV, Anže Slosar, Hee-Jong Seo, David Weinberg. *Early Dark Energy: Reality and Fiction*. [Link](#)
- [3p] JAV, Anže Slosar, Andreu Font-Ribera, Patrick McDonald. *Gaussian Embedding – massively parallelizable sampling algorithm*. [Link](#)
- [4p] Sukhdeep Singh, Rachel Mandelbaum, Anže Slosar, JAV. *Cosmological constraints from galaxy-galaxy lensing and galaxy clustering*. [Link](#)
- [5p] Gabriel German, Graham Ross, JAV. *Observable bounds in Hybrid Natural Inflation from sub-Planckian field excursion*.
- [6p] JAV, M.P. Hobson, A.N. Lasenby, M. Bridges. *Cosmological constraints on Modified Gravity*. [Link](#)
- [7p] Ozgur Akarsu, Tekin Dereli, Suresh Kumar, JAV. *Cosine-law for deceleration parameter*.
- [8p] S. Hee, JAV, W. Handley, A.N. Lasenby, M.P. Hobson. *Analysis of Data Variations from a Constant Dark Energy Equation of State*.

Reviews

- [1R] JAV, Tonatiuh Matos. *Dark matter in the Universe: goals and challenges*. *Rev. Mex. de Física E*. 54, 193-202, 2008. [RMF, 1870-3542](#)
- [2R] JAV, Tonatiuh Matos. *Constraining Cosmological Inflation*. Accepted for publication by *Rev. Mex. Fis. E*.

Conference Proceedings

- [1C] Tonatiuh Matos, JAV, Juan Magana. *Study of Several Potentials as Scalar Field Dark Matter Candidates*. AIP Conf. Proc. 1083, 144-170, 2008. [AIP, 808386](#)
- [2C] Tonatiuh Matos, José Rubén Luevano, L. Arturo Urena, JAV. *Alternative interpretation for the moduli fields of string theories*. J. Phys. Conf. Ser. 91, 012014, 2007. [JP, 773227](#)