

1 Research contributions

Published refereed papers:

1. A. Lazarian, **D. Pogosyan**, 2006, "Studying Turbulence using Doppler-broadened lines: Velocity Coordinate Spectrum", accepted to ApJ.
2. T. E. Montroy, ..., **D. Pogosyan**, ... (Boomerang collaboration, 37 authors), 2006, "A Measurement of the CMB Spectrum from the 2003 Flight of BOOMERANG", ApJ, accepted: 02 May 2006.
3. W. C. Jones, ..., **D. Pogosyan**, ... (Boomerang collaboration, 37 authors), 2006, "A Measurement of the Angular Power Spectrum of the CMB Temperature Anisotropy from the 2003 Flight of BOOMERANG" ApJ, accepted: 28 April 2006.
4. F. Piacentini, ..., **D. Pogosyan**, ... (Boomerang collaboration, 37 authors), 2006, "A Measurement of the Polarization-Temperature Angular Cross Power Spectrum of the Cosmic Microwave Background from the 2003 Flight of BOOMERANG" ApJ, accepted: 10 Feb 2006.
5. C. J. MacTavish, ..., **D. Pogosyan**, ... (Boomerang collaboration, 38 authors), 2006, "Cosmological Parameters from the 2003 Flight of BOOMERANG", ApJ, Accepted: 09 Sep 2005.
6. S Masi, ..., **D Pogosyan**, ... (Boomerang collaboration, 44 authors), 2006, "Instrument, Method, Brightness and Polarization Maps from the 2003 flight of BOOMERanG".
7. E. Scannapieco, C. Pichon, B. Aracil, P. Petitjean, R. J. Thacker, **D. Pogosyan**, J. Bergeron, H. M. P. Couchman, 2006, "The Sources of Intergalactic Metals", Monthly Notices of the Royal Astronomical Society, 365, 615-637.
8. J. R. Bond, C. R. Contaldi, U.-L. Pen, **D. Pogosyan**, S. Prunet, M. I. Ruetalo, J. W. Wadsley, P. Zhang, B. S. Mason, S. T. Myers, T. J. Pearson, A. C. S. Readhead, J. L. Sievers, and P. S. Udomprasert, 2005, "The Sunyaev-Zel'dovich Effect in CMB-calibrated Theories Applied to the Cosmic Background Imager Anisotropy Power at $l > 2000$ ", ApJ, 626, 12.
9. A. Lazarian and **D. Pogosyan**, 2004, "Velocity Modification of Power Spectrum from Absorbing Medium", ApJ, 616, 943.
10. A. C. S. Readhead, ..., **D. Pogosyan**, ..., (CBI collaboration, 21 authors), 2004, "Extended Mosaic Observations with the Cosmic Microwave Background Imager", ApJ, 609, 498.
11. J.R. Bond, C.R. Contaldi, A.M. Lewis and **D. Pogosyan**, "The Cosmic Microwave Background and Inflation Parameters" Int. J. Theor. Phys. 2004, ed E. Verdaguer, "Peyresq Physics 8", "The Early Universe: Confronting Theory with Observations".
12. J. R. Bond, C. Contaldi and **D. Pogosyan**, 2003, "Cosmic Microwave Background snapshots: pre-WMAP and post-WMAP", Phil. Trans. Roy. Soc. Lon. A361 (2003), 2435-2468.

13. J. Ruhl, ..., **D. Pogosyan**, ..., (Boomerang collaboration, 30 authors), 2003, "Improved Measurements of the Angular Power Spectrum of Temperature Anisotropy in the Cosmic Microwave Background from Two New Analyses of Boomerang observations", *ApJ*, 599, 786.
14. J. H. Goldstein, ..., **D. Pogosyan**, ..., (ACBAR collaboration, 17 authors), 2003, "Estimates of Cosmological Parameters Using the Cosmic Microwave Background Angular Power Spectrum of ACBAR", *ApJ*, 599, 773.
15. A. Esquivel, A. Lazarian, **D. Pogosyan**, Jungyeon Cho, 2003, "Velocity statistics from spectral line data: effects of density-velocity correlations, magnetic field, and shear", *MNRAS*. 342, 325-336.
16. J.R. Bond, C.R. Contaldi, **D. Pogosyan**, B.S. Mason, S.T. Myers, T.J. Pearson, U.-L. Pen, S. Prunet, A.C.S. Readhead, J.L. Sievers, 2003, "The Cosmic Microwave Background & Inflation, Then & Now", *AIP Conf.Proc.* 646, 15-33.
17. T. J. Pearson, ..., **D. Pogosyan**, ..., (CBI collaboration, 26 authors), 2003, "The Anisotropy of the Microwave Background to $l = 3500$: Mosaic Observations with the Cosmic Background Imager", *ApJ*, 591, 556-574.
18. J. L. Sievers, ..., **D. Pogosyan**, ..., (CBI collaboration, 17 authors), 2003, "Cosmological Parameters from Cosmic Background Imager Observations and Comparisons with BOOMERANG, DASI, and MAXIMA", 2003, *ApJ*, 591, 599-622.
19. S. T. Myers, C. R. Contaldi, J. R. Bond, U.-L. Pen, **D. Pogosyan**, S. Prunet, J. L. Sievers, B. S. Mason, T. J. Pearson, A. C. S. Readhead, M. C. Shepherd, 2003, "A Fast Gridded Method for the Estimation of the Power Spectrum of the CMB from Interferometer Data with Application to the Cosmic Background Imager", *ApJ*, 591, 575-598.
20. B. S. Mason, ..., **D. Pogosyan**, ..., (CBI collaboration, 26 authors), 2003, "The Anisotropy of the Microwave Background to $l = 3500$: Deep Field Observations with the Cosmic Background Imager", 2003, *ApJ*, 591, 540-555.
21. S. Masi, ..., D. Pogosyan, ... (Boomerang Collaboration, 31 authors), 2002 The BOOMERanG experiment and the curvature of the Universe. *Prog.Part.Nucl.Phys*, **48**, 243-261.
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24. Paolo di Bernardis, ..., **D. Pogosyan**, ..., F. Scaramuzzi (BOOMERanG collaboration, 35 authors), 2002, Multiple Peaks in the Angular Power Spectrum of the Cosmic Microwave Background: Significance and Consequences for Cosmology, *Ap. J.*, **564**, 559-566.

25. A. Lazarian, **D. Pogosyan**, B. Pichardo and E. Vázquez-Semadeni, 2001, Emissivity Statistics in Turbulent, Compressible MHD Flows, *Ap. J.*, **555**, 130-138.
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28. A.Lange, ..., **D. Pogosyan**, ..., D.Sforna (BOOMERanG collaboration, 32 authors), 2001, First Estimations of the Cosmological Parameters from BOOMERanG, *Phys. Rev. D*, **63**, 042001.
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30. Paolo di Bernardis, ..., **D. Pogosyan**, ..., N. Vittorio (BOOMERanG collaboration, 36 authors), 2000, A Flat Universe from the High Resolution Maps of the Cosmic Microwave Background Radiation, *Nature* , **404**, 955.
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40. B.S.Sathyaprakash, V.Sahni, D.Munshi, **D.Pogosyan** and A.Melott, 1995 Gravitational Instability in the Strongly Non-linear Regime: A Study of Various Approximations, *MNRAS*, **275**, 463.
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42. Kofman, L., Melott, A., **Pogosyan, D.** and Shandarin, S., 1992, Large-scale coherent structures and the Adhesion Model. *Ap. J.*, **393**, 437-449.
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Other publications (selected):

48. **Pogosyan and A. Lazarian**, 2005, "Spectral Properties of Interstellar Turbulence via Velocity Channel Analysis", in: "Magnetic fields in the Universe", eds. E. M. de Gouveia Dal Pino, A. Lazarian & G. Lugones. Angra dos Reis, Brazil Nov. 23 - Dec 3, 2004.
49. **D. Pogosyan**, 2004, "CMB and the topology of the Universe" Digital recording of the XX IAP Colloquium 'Cosmic Microwave Background Physics and Observations', Paris, 28 June - 2 July, 2004.
50. **D. Pogosyan**, J.R. Bond, C.R. Contaldi. Limits on the Dark Energy Parameters from Cosmic Microwave Background experiments Proceedings of the XVIII IAP Colloquium 'On the nature of dark energy', Paris, 1-5 July 2002.
51. J.R. Bond, ... **D.Pogosyan**, ..., and the MaxiBoom Collaboration, 2000, CMB Analysis of Boomerang & Maxima & the Cosmic Parameters $\{\Omega_{tot}, \Omega_b h^2, \Omega_{cdm} h^2, \Omega_\Lambda, n_s\}$, Proc. IAU Symposium 201, ed. A. Lasenby & A. Wilkinson (PASP, 2001).
52. J.R. Bond, **D.Pogosyan**, S. Prunet, K. Sigurdson and the MaxiBoom Collaboration, 2000, The Qunitessential CMB, Past & Future, Proc. CAPP-2000, ed. R. Durrer, J. Garcia-Bellido, M. Shaposhnikov (AIP).

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55. **D.Pogosyan**, J.R.Bond, L.Kofman, and J. Wadsley, 1998, Cosmic Web: Origin and Observables, in: Proceedings of the XIV IAP Colloquium "Wide Field Surveys in Cosmology", eds. Y. Mellier and S. Colombi, (Editions Frontieres, France).
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