CURRICULUM VITAE

Name:	Alexandre Lazarian
Nationality:	USA
Present Address:	University of Wisconsin
	475 North Charter Street, 5534 Sterling Hall, Madison, Wisconsin 53706
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Current Research Interests:

MHD Processes: Magnetic Reconnection
Properties of Magnetized Turbulence at Various Scales and Regimes
Astrophysical Magnetic Fields: Origin, Properties, Techniques of Study
Acceleration and Propagation of Cosmic Rays
Techniques to Observational Studies of Astrophysical Turbulence
Alingment, Acceleration and Emission of Interstellar and Circumstellar Dust
Evolution of Molecular Clouds and Star Formation
CMB Foregrounds: Description and Removal

Education:

1995	**Ph.D.** in Applied Mathematics from University of Cambridge (UK)
	Thesis Title: *Statistical Study of Astrophysical Processes*
1988	M.Sc. in Theor. Physics from Moscow Institute of Physics and Technology
1986	B.Sc. in Astrophysics from Moscow Institute of Physics and Technology

Faculty positions:

2009 - present	Full Astronomy Professor, University of Wisconsin-Madison
2004 - 2009	Associate Professor, University of Wisconsin-Madison
1999- 2004	Assistant Professor, University of Wisconsin-Madison

Postdoctoral Research:

Sept. 1998- Aug. 1999	Long-term Senior Fellow, CITA, Toronto
Sept. 1995- Aug. 1998	Research Associate, Princeton University Observatory
May 1995- July 1995	Visiting Postdoctoral Researcher, CfA, Harvard
Dec.1994- Aug.1995	Postdoctoral Research Fellow, Univ. of Texas, Austin

Graduate Research:

1991-1994	Ph.D. Student, DAMTP, Univ. of Cambridge (UK)
1990-1991	Visiting Scholar, Dept. of Theoretical Physics, Oxford University
1988-1990	Research Student, Dept. of Theoretical Physics,
	Lebedev Physical Institute, Moscow

Recent Awards:

2010	Humboldt Professor Award
2011	Vilas Award
2012	Fellow of American Physical Society
2013	Special Visiting Researcher[1]

Professional Societies:

Member of the International Astronomical Union
Member of the American Physical Society
Full Member of the American Astronomical Society

Member of the American Geophysical Society
Member of the European Geophysical Society

Teaching:

UW-Madison:

Fall 2013	Graduate course "Interstellar Medium", Ast. 720
Spring 2012	Undergraduate course "Evolving Universe", Ast. 103
Spring 2011	Graduate course "Astrophysics", Ast. 702
Spring 2010	Graduate course "Astrophysics", Ast. 702
Fall 2009	Undergraduate course "Evolving Universe", Ast. 103
Spring 2009	Graduate course "Astrophysics", Ast. 702
Fall 2008	Undergraduate course "Evolving Universe", Ast. 103
Spring 2008	Graduate course "Astrophysics", Ast. 702
Fall 2007	Undergraduate course "Evolving Universe", Ast. 103
Spring 2007	Graduate course "Astrophysical Magnetic Fields", Ast. 920
Fall 2006	Graduate course "Astrophysics", Ast. 700
Fall 2004	Graduate course "Astrophysical Turbulence", Ast. 920
Spring 2004	Graduate course "Interstellar Medium", Ast. 720
Fall 2003	Graduate course "General Astrophysics", Ast. 700
Spring 2003	Undergraduate course "Evolving Universe", Ast. 103
Fall 2002	Graduate course "General Astrophysics", Ast. 700
Spring 2002	Undergraduate course "The Universe", Ast. 200
Fall 2001	Graduate course "General Astrophysics", Ast. 700
Fall 2000	Graduate course "General Astrophysics", Ast. 700
Spring 2000	Graduate course "Physics of Interstellar Medium", Ast. 720
Fall 1999	Graduate course "Selected Chapters of ISM", Ast. 920

University of Toronto:

Spring 1999	1/4 of a Graduate course "Galaxies II"
Spring 1999	Graduate minicourse "Physics of Interstellar Medium"

Supervision of Postdocs (and results)[2]

March 2007- June 2008	Diego Gonsalvez, postdoc, 3 papers published
	faculty at the University of Sao Paolo since June 2008
January 2006- 2009	Grzegorz Kowal, postdoc, 6 papers published, 3 review
	Fellow at the University of Sao Paolo 2009-present
Sept. 2000 - Sept. 2003	Jungyeon Cho, postdoc, 8 papers published, 5 reviews
	Fellowship at CITA in 2003-2004
	Associate Professor at Chungnam University since 2004

Supervision of Students (and results)

PhD students:

Sept. 2000 - 2005	Huirong Yan, PhD 2005, 7 papers published, 5 reviews
	Fellowship at CITA 2005-2008
	Arizona Prize Fellow 2008-2009
	Bairen Professor at Kavli Insitute-Bejing 2009-present
Sept. 2000 - 2005	Alejandro Esquivel, PhD 2005, 5 papers published, 2 reviews
	Fellow at UNAM since 2005-2007
	Faculty at UNAM 2007-present
Sept. 2004 - May 2010	Andrey Beresnyak, 11 papers published, 4 reviews
	Director's Fellow at Los Alamos since 2010
	Humboldt Postdoctoral Fellow for June 2011-May 2012
Aug. 2006 - 2012	Hoang Thiem, 14 papers published in ApJ and MNRAS, 2 review
	CITA Fellow since August 2012

	Humboldt Postdoctoral Fellow starting September 2013
Sept. 2008-present	Blakesley Burkhart, PhD student, 11 papers published in ApJ, 1 in Nature, 5 submitte accepted Einstein Fellowship together with SMA and ITC Fellowships at Harvard
Joint PhD supervison (sandwitch scheme with Brazilian co-supervisors)	
since Sept. 2009	Reinaldo Santos-Lima, 6 papers published
since Sept. 2010	Marcia Leao, 1 paper published, 1 submitted
since Nov. 2012	Caio Fabio, 1 paper accepted
Undergarduate students	
US and international undergraduates	8 students supervised, 4 papers publshed, 2 in preparation

Grant Awards:

Collaborator at SOFIA HAWC+ Polarimeter
PI at NSF AST -1212096 "Quantitative Insight into Interstellar Turbulence"
CoPI at NSF AST -1109295 "Collaborative Research: Observational testing of interstellar grain alignment theory"
PI at NASA ATFP10 NNX11AD32G "Spectrum and Polarization of Anomalous Galactic Emission"
CoI at NASA ATFP08-0101 "Microphysics and Macrophysics of Transport and Re-acceleration of Nonthermal Particles in Turbulent Cluster Media"
PI at NSF AST -0808118 "Towards Understanding of Interstellar Turbulence"
PI at NSF AST -0646699 "Collaborative proposal: SHINE– Stochastic Particle Acceleration by Turbulence in Solar Flares"
CoI at NSF AST -0507164 "Radiation Transfer in Aligned Grains: Probing Molecular Clouds, Protostars, and Disks"
CoI at NASA X5166204101 "Acceleration of Cosmic Rays and Evolution of Self Consistent Modified Shocks: Novel Simulations"
PI at NSF AST -0307869 "Fundamentals of Interstellar Turbulence"
CoPI at NSF ASM-0312282 "Turbulence and Particles Acceleration in Solar Flares"
CoI at NSF AST -0243156 "Diffraction-limited Polarimetry at the Caltech Submillimeter Observatory"
PI at HST Cycle 12 (theory) HST-AR-09939.01 "Magnetized Mixing Layers"
CoI at NSF AST-0098597 "Circumstellar Magnetic Field Diagnostics from Polarization of Line Scattering"
PI at NSF AST-0125544 "Collaborative proposal: Fast Dynamos in the Computer and the Galaxy"
CoI at Australian Research Council Grant "Interstellar Physics at the Epoch of Galaxy Formation"
Member of "Center for Magnetic Self-Organization in Laboratory and Astrophysical Plasmas"
Member of the *GLIMPSE SIRTIF* Team
Member of the *GALFA* Team

Miscelaneous Fellowships and Honors:

Visiting Professorship at Harvard, May-June 2013
Visiting Professorship at IIP, 2012
Visiting Professor Award at Nice Observatory, Sept-October 2012
Visiting Professor Award at IIP, Sept.-January, 2011
Vilas Lifecycle Award, 2005
Visiting Professor, Stanford/NASA-Ames (one month): June-July 2004
Visiting Professor, Cologne (two months): January-February 2004
Visiting Professor, Ecole Normale Superier (one month): June 2003
Visiting Professor, Stanford (one month): July 2002
Visiting Professor, Sao-Paolo (one month): March 2001
Visiting Professor, Caltech (one and half month): June-July 2000
Visiting Fellowship at CfA, Harvard Univ.: May-July 1995
The Isaac Newton Scholarship at Cambridge Univ.: 1991-1994

Cambridge Overseas Trust Award: 1991-1994
Soros Foundation Visiting Scholarship (Award to the winner of an
All-Soviet Union Competition of Young Scientists): 1990-1991
The Best Young Inventor Prize, 1988
The Honored Inventor, USSR, 1987
The Best Inventor of Moscow Institute of Physics and Technology, 1987
Winner of "Technology is the Vehicle of Progress" TV contest, 1986

Editing and Service:

2012	Guest Editor "Turbulent Magnetic Reconnection", Nonlin. Processes Geophys.
2012	Co-Editor "Magnetic fields in diffuse media", Lecture Notes in Physics Series
2008	Co-Editor "Magnetic fields in the Universe II", Revista Mexicana Special Volume
2005	Co-Editor :"Magnetic fields in the Universe", AIP, Volume 784"
1989 - 1991	Editor of the Physics & Technology Section of the Russian popular science magazine "Quantum" ;
1987 - 1990	Reporter to Russian popular science magazines "Nature" and "Inventor and Rationalizer"
	Refereed for Wiley Encyclopedia
Panels	Serve regularly at NASA and NSF review panels, chaired several panels served at NSERC panel, refereed proposals from Israel, Germany and Russia
Refereeing	around 10 papers per year (ApJ, A&A, MNRAS, Phys. Rev. D. Phys Rev. Letters, Icarus, Phys. of Plasmas
	Member of SOC of Astronomy and Geophysics meetings

Conference Organizing:

February 2013	Co-Organizer "Magnetic Fields in the Universe LV", conference, Cancun, Mexico
August 2012	Co-Organizer "Magnetic Fields in the ISM", IAU Genaral Assembly session, Beijing, China
August 2011	Co-Organizer "Magnetic Fields in the Universe III", conference, Zakopane, Poland
December 2010	Co-Organizer "Magnetic Reconnection in Turbulent Plasmas" AGU General Assembly session
December 2010	Co-Organizer "Turbulence in Magnetosphere" AGU General Assembly session
March 2010	Co-Organizer "Turbulent Magnetic Reconnection" EGU General Assembly session
December 2009	Co-Organizer "Turbulence in Solar Wind" AGU General Assembly session
December 2008	Co-Organizer "Turbulence in Solar Wind and Heliospheric Plasmas" AGU General Assembly session
February 2008	Co-Organizer "Magnetic Fields in the Universe II", conference, Cozumel, Mexico
July 2007- June 2009	Member of Space and Astronomy Committee (GSC17), NSERC, Canada
December 2007	Co-Organizer "Solar Wind and Heliospheric Turbulence" AGU General Assembly session
June 2007	Co-Organizer "Astrophysical Turbulence" AAS session
November 2004	Co-Chair, "Magnetic Fields in the Universe", conference, Angra dos Reis, Brazil
Every year	Convene "Midwest Magnetic Fields workshop" 4 workshops held, Madison
Every year	Co-Organize one or two AGU sessions 6 sessions held, San Francisco
Every year	Co-Organize EGU session 4 sessions, Viena
July 2002	Chair, Sci. Org. Committee, Ringberg "Astro-Plasmaphysics" Workshop

Invited Talks at Conferences (last 10 years):

September 2013	*KIPACS@10*, Stanford, USA
June 2013	*Astronum 2013*, Biaritz, France
June 2013	*Star Formation Workshop*, Ringberg, Germany
May 2013	*Magnetic Fields in Star Formation*, Heidelberg, Germany
May 2013	*Midwest Magnetic Fields*, Madison, USA
February 2013	*Magnetic Fields in the Universe*, Cancun, Mexico
December 2012	*Searching for sources for Cosmic Rays*, Paris, France
Nobember 2012	*Exploring Universe with Gamma Rays*, Barcelona, Spain
October 2012	*Nature Particle Accelerators meeting*, Annapolis, USA
October 2012	*German Astronomical Society meeting*, Hamburg, Germany
August 2012	*IAU Genaral Assembly session*, Beijing, China
August 2012	*OAGS-AGU General Assembly session*, Singapore
July 2012	*COSPAR Assembly session*, Mysore, India
July 2012	*5th International Symposion on Gamma Rays*, Heidelberg, Germany
June 2012	*Star Formation Workshop*, Ringberg Castle, Germany
June 2012	*Astronum 2012*, Hawaii, USA
May 2012	*US-Japan Reconnection Workshop*, Princeton, USA
April 2012	*CMSO Reconnection Workshop*, Madison,USA
February 2012	*Planck Astrophysics Conference*, Bologna, Italy
February 2012	*Planck Astrophysics Conference*, Bologna, Italy
November 2011	*Cosmic Ray Anisotropy Workshop*, Madison, USA
August 2011	*Magnetic Fields in the Universe III*, Zakopane, Poland
July 2011	*Frontiers in Space Research*, Tyrol, Austria
June 2011	*Astronum 2011*, Valencia, Spain
June 2011	*Lecture at School of Plasma physics*, Kavli-Bejing, China
May 2011	*Understanding foregrounds* , Zadar, Croatia
May 2011	*Particle Acceleration in Plasmas*, Bern, Switzerland
May 2011	*Midwest Magnetic Fields*, Madison, USA
April 2011	*APS cosmic ray session*, Anaheim, USA
April 2011	*Cosmic Ray Acceleration*, Bejing, China
April 2011	*Collage IX*, San Jose, Costa Rica
April 2011	*EGU Session on particle acceleration*, Vienna, Austria
March 2011	*Plasma Processes in Magnetosphere*, Maoi, Hawaii
March 2011	*Astrophysical Turbulence Workshop*, Stanford, USA
December 2010	*US-Japan Workshop on Reconnection*, Nara, Japan
November 2010	*Non-thermal pnm in Colliding Galaxy Clusters*, Nice, France
September 2010	*Advances in Plasma Astrophysics*, Giardini-Naxos, Italy
August 2010	*Meeting of Americas*, Foz Igacy, Brazil
June 2010	*Astronum2010*, San Diego, USA
June 2010	*Cosmic Magnetism*, Kiama, Australia
May 2010	*Plasma Astrophysics meeting at AAS*, Maiami, USA
May 2010	*Magnetic Fields: from kpc to kilometers*, Kracow, Poland
May 2010	*EGU session on reconnection*, Vienna, Austria
April 2010	*Workshop on Imbalanced Turbulence*, Madison, USA
March 2010	*Pickup Ions through Helioshere*, Maui, Hawaii
March 2010	*Star Formation*, Nagoya, Japan
December 2009	*AGU Turbulence session*, San Francisco, USA
November 2009	*Jokipii Symposium*, Tucson, USA
November 2009	*Shocks, Turbulence, Acceleration*, Pusan, Korea
November 2009	*Unsteady Reconnection*, Atlanta, USA
October 2009	*US-Japan Workshop on Reconnection*, Madison, USA

October 2009	*Dense Cores in Dark Clouds*, Rhode Island, USA
September 2009	*Workshop on Thin Current Sheets*, Yellow Stone, USA
September 2009	*Polarization workshop*, Brussels, Belgium
August 2009	*JPL Magnetic Fields in Clouds workshop*, Pasadena, USA
August 2009	*IAU General Assembly*, Rio de Janeiro, Brazil
August 2009	*SHINE workshop*, Nova Scotia, Canada
June 2009	*Astronum 2009*, Chemonix, France
May 2009	*Petrosyanfest*, Stanford, US
March 2009	*Cross Scale Workshop*, Italy
January 2009	*Voyager Worshop*, Hawaii, US
December 2008	*American Geophysical Society General Assembly*, San Francisco, US
October 2008	*Turbulent reconnection workshop*, Kracow, Poland
October 2008	*Kinetic Simulations of Turbulence*, Kracow, Poland
September 2008	*Cosmic Dust: Near and Far*, Heidelberg, Germany
July 2008	*CMB component separation meeting*, Pasadena, USA
July 2008	*CMSO meeting*, Princeton, USA
July 2008	*Astronomical Polarimetry 2008*, La Malbaie, Canada
June 2008	*SHINE 2008 Workshop*, Zermatt, USA
June 2008	*Astronum 2008*, Virgin Islands, USA
March 2008	*60 years of Magnetic Fields*, Lexington, USA
March 2008	*US-Japan Reconnection meeting*, Okinawa, Japan
January 2008	*Magnetic fields in the Universe II*, Conzumel, Mexico
December 2007	*AGU "Solar Wind and Heliospheric Turbulence" session*, San Fransisco, USA
October 2007	*From the Outer Heliosphere to the Local Bubble*, Bern, Switzerland
August 2007	*Star fromation, Then and Now*, Santa Barbara, USA
June 2007	*2nd International Conference on Numerical Modeling of Space Plasma Flows*, Paris, Fra
May 2007	*AAS "Astrophysical Turbulence" session*, Honolulu, USA
April 2007	*Galactic Magnetic Fields*, Princeton, USA
March 2007	*6th IGPP Annual International Astrophysics Conference*, Honolulu, USA
July 2006	*Aspen Workshop on Magnetic Self-Organization*, Aspen, USA
June 2006	*18th International Conference on Spectral Line Shapes*, Auburn, USA
June 2006	*9th Electromagnetic and Linght Scattering Conference*, St. Petersburg, Russia
May 2006	*Small Ionized and Neutral Structures in Diffuse Interstellar Medium*, Soccoro, USA
April 2006	*European Geoscience Union Assembly*, Vienna, Austria
March 2006	*Harry Petschek Symposium on Magnetic Reconnection*, College Park, USA
September 2005	*The Origin and Evolution of Cosmic Magnetism*, Bologna, Italy
May 2005	*Nonlinear Cosmology: Turbulence and Fields*, Trieste, Italy
March 2005	*Astrophysical Reconnection and Particle Acceleration*, Awaji-shima island, Japan
November 2004	*Magnetic Fields in the Universe*, Angra dos Reis, Brazil
September 2004	*Plasma Processes in Galaxies and in Clusters of Galaxies*, Cracow, Poland
August 2004	*Diffuse Matter in the Galaxy: Observations Confront Theory*, Arecibo, Puerto Rico
August 2004	*Cosmic Rays and Magnetic Fields in Large Scale Structure*, Pusan, Korea
July 2004	*Plasma Physics School*, Trieste, Italy
June 2004	*Penetrating Bars through Masks of Cosmic Dust*, South Afrika
March 2004	*Polarimetry Symposium*, Hawaii, USA
December 2003	*Numerical Methods and Astrophysical Turbulence*, Taipei, Taiwan
September 2003	*Dense Interstellar Medium in Galaxies*, Zermatt, Switzerland
May 2003	*Astrophysics of Dust*, Colorado , USA
April 2003	*Magnetic Fields and Star Formation*, Madrid , Spain
March 2003	*CMB Polarization Workshop*, Minneapolis, USA
February 2003	*IGPP Second International Astrophysics Conference*, Palm Springs, USA

Research Publications

Main Publications in Refereed Journals

1. Lazarian, A. & Yan, H. 2014, Superdiffusion of Cosmic Rays: Implications for Cosmic Ray Acceleration, *ApJ*, in press
2. Hoang, T., Lazarian, A. & Martin, P. 2014, Paramagnetic alignment of small grains: a novel method for measuring interstellar magnetic fields, *ApJ*, in press
3. Santos-Lima, R., et al. 2014, Magnetic field amplification and evolution in turbulent collisionless MHD: an application to the ICM, *ApJ*, **781**, 84
4. Cho, J., & Lazarian, A. 2014,.Imbalanced Relativistic Force-free Magnetohydrodynamic Turbulence ApJ, **780**, 30
5. Lazarian, A. 2013, Reconnection Diffusion in Turbulent Fluids and Its Implications for Star Formation, Space Science Reviews, 103
6. Hoang, T., & Lazarian, A. 2014, Grain alignment by radiative torques in special conditions and implications MNRAS, **438**, 680
7. Hoang, T., Lazarian, A., & Martin, P. G. 2013, Constraint on the Polarization of Electric Dipole Emission from Spinning Dust, *ApJ*, **779**, 152
8. Karimabadi, H., & Lazarian, A. 2013, Magnetic reconnection in the presence of externally driven and self-generated turbulence, *Physics of Plasmas*, **20**, 112102
9. Pingel, N. M., Stanimirović, S., Peek, J. E. G., et al. 2013, *ApJ*, **779**, 36
10. Andersson, B.-G., Piirola, V., De Buizer, J., et al. 2013, Evidence for H2 Formation Driven Dust Grain Alignment in IC 63, *ApJ*, **775**, 84
11. Leão, M., de Gouveia Dal Pino, E., Santos-Lima, R., & Lazarian, A. 2013, Cloud core collapse and the role of turbulent magnetic reconnection diffusion, *ApJ*, **777**, 46
12. Wykes,Sarka et al. 2013, Mass entrainment and turbulence-driven acceleration of ultra-high energy cosmic rays in Centaurus A, *ApJ*, **558**, 19
13. Burkhart, B., Lazarian, A., Goodman, A., & Rosolowsky, E., 2013, Hierarchcal Structure of Magnetohydrodynamic Turbulence in Position-Position-Velocity Space, *ApJ*, **770**, 141
14. Burkhart, B, Ossenkopf, V., Lazarian, A., & Stutzki, J. 2013, The Effects of Radiative Transfer on the PDFs of Molecular MHD Turbulence, *ApJ*, **771**, 122
15. Santos-Lima, R., de Gouveia Dal Pino, E. M., & Lazarian, A. 2013, Disc formation in turbulent cloud cores: is magnetic flux loss necessary to stop the magnetic braking catastrophe or not?, *MNRAS*, **429**, 3131
16. Burkhart, B., Lazarian, A., Ossenkopf, V., & Stutzki, J. 2013, The Turbulence Power Spectrum in Optically Thick Interstellar Clouds, ApJ, **771**, 123
17. Desiati, P., & Lazarian, A. 2013, Anisotropy of TeV Cosmic Rays and the Outer Heliospheric Boundaries, *ApJ* **762**, 44
18. Hoang, T. & Lazarian, A. 2012, Acceleration of Small Grains due to Charge Fluectuations, *ApJ*, **761**, 96
19. Lazarian, A., Esquivel, A. & Churcher, R. 2012, Magnetization of Cloud Cores and Envelopes and Other Observational Consequences of Reconnection Diffusion, *ApJ*, **757**, 154 (20 pages)
20. Burkhart, B. & Lazarian, A. 2012, The Column Density Variance-$\mathcal{M}_s$ Relationship, *ApJL*, **755**, L19 (5 pages)
21. Kowal, G., de Gouveia Dal Pino, E. M., & Lazarian, A. 2012, Particle Acceleration in Turbulence and Weakly Stochastic Reconnection, *Physical Review Letters*, **108**, 241102
22. Yan, H. & Lazarian, A. 2012, Tracing Magnetic Fields with Ground State Alignment, Journal of Quantitative Spectroscopy and Radiative Transfer, **113**, Issue 12, p. 1409-142

23. Cho, J., Lazarian, A., & Timbie, P. T. 2012, A Technique for Foreground Subtraction in Redshifted 21 cm Observations, *ApJ*, **749**, 164 (4 pages)

24. Burkhart, B., Lazarian, A., & Gaensler, B. 2012, Properties of Interstellar Turbulence from Gradients of Linear Polarization Maps, *ApJ*, **749**, 145 (14 pages)

25. Hoang, T., Lazarian, A. & Schlickeiser, 2012, Acceleration of dust by magnetic turbulence, *ApJ*, **747**, 54 (12 pages)

26. Santos-Lima, R., de Gouveia Dal Pino, E. M., & Lazarian, A. 2012, The role of turbulent magnetic reconnection on the formation of rotationally supported protostellar disks, *ApJ*, **747**, 21 (8 pages)

27. Lazarian, A., & Pogosyan, D., 2012, Statistical Description of Synchrotron Intensity Fluctuations: Studies of Astrophysical Magnetic Turbulence, *ApJ*, **747**, 5 (30 pages)

28. Lazarian, A., Eyink, G. & Vishniac, E.2012, Relation of Astrophysical Turbulence and Magnetic Reconnection, *Physics of Plasmas*, **19**, 012105-012105-8

29. Yan, H., Lazarian, A. & Schlickeiser, 2011, Cosmic Ray streaming from SNRs and gamma ray emission from nearby molecular clouds, *ApJ*, **745**, 140-146

30. Desiati, P., & Lazarian, A. 2012, Cosmic rays and stochastic magnetic reconnection in the heliotail, *Nonlinear Processes in Geophysics*, **19**, 351-364

31. Kowal, G., Lazarian, A., Vishniac, E. T., & Otmianowska-Mazur, K. 2012, Reconnection studies under different types of turbulence driving, *Nonlinear Processes in Geophysics*, **19**, 297-314

32. Lapenta, G., & Lazarian, A. 2012, Achieving fast reconnection in resistive MHD models via turbulent means, *Nonlinear Processes in Geophysics*, **19**, 251-263

33. Eyink, G. L., Lazarian, A., & Vishniac, E. T. 2011, Fast Magnetic Reconnection and Spontaneous Stochasticity, *ApJ*, **743**, 51-78

34. Hoang, T., Lazarian, A., & Draine, B. T. 2011, Spinning Dust Emission: Effects of irregular grain shape, transient heating and comparison with WMAP results, *ApJ*, **741**, 87-107

35. Esquivel, A., & Lazarian, A. 2011, Velocity Anisotropy as a Diagnostic of the Magnetization of the Interstellar Medium and Molecular Clouds, *ApJ*, **740**, 117 (7 pages)

36. Gaensler, B. M., Haverkorn, M., Burkhart, B., Newton-McGee, K., Ekers, R., Lazarian, A., McClure-Griffiths, N., Robishaw, T., Dickey, J., & Green, A. 2011, Low-Mach-number turbulence in interstellar gas revealed by radio polarization gradients, *Nature*, **478**, 214-217

37. Fabian, A. C., Sanders, J. S., Williams, R. J. R., Lazarian, A., Ferland, G., Johnstone, R. 2011, The energy source of the filaments around the giant galaxy NGC 1275, *MNRAS*, **417**, 172-177

38. Tofflemire, B., Burkhart, B. & Lazarian, A. 2011, Interstellar sonic and Alfvenic Mach numbers and the Tsallis distribution, *ApJ*, **736**, 60 (19 pages)

39. Kowal, G., de Gouveia dal Pino, E., Lazarian, A. 2011, Magnetohydrodynamic simulations of reconnection and particle acceleration: Three-dimensional effects, *ApJ*, **735**, 102 (10 pages)

40. Falceta-Gonsalves, D. & Lazarian A., 2011, Evolution and transient clumps in turbulent interstellar medium, *ApJ*, **735**, 99 (7 pages)

41. Kowal, G., Falceta-Goncalves, D. & Lazarian A., 2011, Turbulence in collisionless plasmas: stastistical analysis from numerical simulations with pressure anisotropy, New Journal of Physics, 13, 053001

42. Yan H. & Lazarian A., 2011, Cosmic Ray transport through gyroresonance instability in compressible turbulence, *ApJ*, **731**, 35 (10 pages)

43. Lazarian, A., Kowal, G., Vishniac, E., & de Gouveia Dal Pino, E. 2011, Fast magnetic reconnection and energetic particle acceleration, *Planetary and Space Science*, **59**, Issue 7, 537-546

44. Brunetti A. & Lazarian A. 2011, Particle reacceleration by compressible turbulence in galaxy clusters: efects of reduced mean free path, *MNRAS*, **412**, 817-824

45. Beresnyak, A. Yan, H. & Lazarian, A. 2011, Numerical study of cosmic ray diffusion in Magnetohydrodynamic turbulence, *ApJ*, **728**, 60-67

46. Brunetti, G., & Lazarian, A. 2011, Acceleration of primary and secondary particles in galaxy clusters by compressible MHD turbulence: from radio haloes to gamma-rays, *MNRAS*, **410**, 127-142

47. Shalchi, A., Büsching, I., Lazarian, A., & Schlickeiser, R. 2010, Perpendicular Diffusion of Cosmic Rays for a Goldreich-Sridhar Spectrum, *ApJ*, **725**, 2117-2127

48. Lazarian, A., Kowal, G. & de Gouveia dal Pino, E. 2010, Fast Magnetic Reconnection and Energetic Particle Acceleration, *Planetary and Space Science*, **59**, Issue 7, 537-546

49. Ivlev, A. V., Lazarian, A., Tsytovich, V. N., de Angelis, U., Hoang, T., & Morfill, G. E. 2010, Acceleration of Small Astrophysical Grains due to Charge Fluctuations, *ApJ*, **723**, 612-619

50. Beresnyak, A., & Lazarian, A. 2010, Scaling Laws and Diffuse Locality of Balanced and Imbalanced Magnetohydrodynamic Turbulence, *ApJL*, **72**2, L110-L113

51. Lazarian, A., & Desiati, P. 2010, Magnetic Reconnection as the Cause of Cosmic Ray Excess from the Heliospheric Tail, *ApJ*, **722**, 188-196

52. Cho, J., & Lazarian, A. 2010, Galactic Foregrounds: Spatial Fluctuations and a Procedure for Removal, *ApJ*, **720**, 1181-1201

53. Kowal, G., & Lazarian, A. 2010, Velocity Field of Compressible Magnetohydrodynamic Turbulence: Wavelet Decomposition and Mode Scalings, *ApJ*, **720**, 742-756

54. Hoang, T., Draine, B. T., & Lazarian, A. 2010, Improving the Model of Emission from Spinning Dust: Effects of Grain Wobbling and Transient Spin-up, *ApJ*, **715**, 1462-1485

55. Kulpa-Dybel, K., Kowal, G. Otmianowska-Mazur, K., Lazarian, A. & Vishniac E. 2010, Reconnection in weakly stochastic B-fields in 2D, *A&A*, **514**, id.A26

56. Chepurnov, A., Lazarian, A., Stanimirovic, S., Peek, G. & Heiles, C. 2010, Velocity spectrum for HI at high latitudes, *ApJ*, **714**, 1398-1406

57. Santos-Lima, R. Lazarian, A. Gouveia Dal Pino, E. & Cho, J. 2010, Diffusion of magnetic field and removal of magnetic flux from clouds via turbulent reconnection, *ApJ*, **714**, 442-461

58. Falceta-Goncalves, D., Lazarian, A. & Houde M. 2010, Damping of MHD turbulence in partially ionized gas and the observed difference of velocities of neutrals and ions, *ApJ*, **713**, 1376-1385

59. Chepurnov, A., & Lazarian, A. 2010, Extending Big Power Law in the Sky with Turbulence Spectra from WHAM data, *ApJ*, **710**, 853-858

60. Esquivel, A. & Lazarian, A. 2010, Tsallis statistics as a tool for studying interstellar turbulence, *ApJ*, **710**, 125-132

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[4]The inventions which were considered of strategic importance were classified.

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Popular articles and book reviews: 4 book reviews for "Priroda" (which means "Nature" in Russian) journal of science, 6 articles for "Quantum" journal of popular science (printed in Russian and in English), 7 articles for "Inventor" journal of science and technology (in Russian)