Curriculum vitae of Axel Brandenburg

February 8, 2025

Born: 7 April 1959 in Heide, Federal Republic of Germany
Nationality: German
Marital status: married, 1 child

Address

Nordita, KTH Royal Institute of Technology and Stockholm University, AlbaNova University Center, Hannes Alfvéns väg 12, SE - 106 91 Stockholm, Sweden; e-mail: brandenb@nordita.org,
http://AxelBrandenburg.github.io, http://orcid.org/0000-0002-7304-021X

Education

Docent of Astronomy, University of Helsinki, March 1992

Dr. Phil., University of Helsinki, May 1990, Doctoral dissertation: *Challenges for solar dynamo theory: α-effect, differential rotation and stability*, ISBN 952-90-1697-2

Lic. Phil., University of Helsinki, February 1989, Licentiate thesis: *Kinematic dynamo theory and the solar activity cycle*

Dipl. Phys., University of Hamburg, January 1986, Diploma thesis: *Hydrodynamics of convective bubbles in linear approximation*

Employment

Jan 2007 – present:	Professor of Astrophysics, Stockholm Observatory, NORDITA, Stockholm
Aug 2015 – Jul. 2018:	Visiting Faculty, University of Colorado, Boulder (LASP, APS, and JILA)
Jan 2000 – Dec. 2006:	Professor of Astrophysics, NORDITA, Copenhagen
Feb 1996 – Dec. 2000:	Professor of Applied Mathematics, University of Newcastle upon Tyne
Dec 1994 – Jan. 1996:	Nordic Assistant Professor, Nordita, Copenhagen
Dec 1992 – Nov. 1994:	Postdoctoral Research Fellow, High Altitude Observatory/NCAR, Boulder
Aug 1992 – Nov. 1992:	Visiting Fellowship, University of Cambridge
Sep 1990 – Aug. 1992:	Postdoctoral Research Fellow, Nordita, Copenhagen

Publications

Below the numbers of publications (published or in print) and the h indexes (from Web of science, ResearcherID: I-6668-2013), the Astrophysical Data Service (ADS), and Google Scholar (GS); see also:
http://www.nordita.org/~brandenb/pub/node1.html

Number of papers in refereed journals: 461 + 7 submitted
Number of invited conference reviews: 43
Number of communications to scientific meetings: 86
Total number of citations: 17069, h-index 65 (on Web of Science); 21986, h-index 73 (ADS); and 29098, h-index: 85 (on Google Scholar)

Influential papers

The second column refers to the paper number in the full list of publications,
http://AxelBrandenburg.github.io/pub/node1.html

Citations are from Web of Science (WoS), Astrophysical Data Service (ADS), and Google Scholar (GS).

		citations		
paper:	#	WoS	ADS	GS
Brandenburg & Subramanian (2005)	A.153	1281	1398	1921
Beck, Brandenburg et al. (1996)	A.58	825	888	1274
Brandenburg et al. (1995)	A.44	719	766	1067
Brandenburg (2001)	A.98	450	489	687
Brandenburg (2005)	A.145	300	345	441
Haugen, Brandenburg, & Dobler (2004)	A.133	282	304	406
Saar & Brandenburg (1999)	A.90	268	289	381
Brandenburg, Enqvist, & Olesen (1996)	A.54	247	276	354
Nordlund, Brandenburg, et al. (1992)	A.22	218	230	299
Brandenburg & Dobler (2002)	A.111	204	219	303
Brandenburg et al. (1996)	A.52	195	202	292
Dobler, Stix, & Brandenburg (2006)	A.159	181	204	290
Christensson, Hindmarsh, & Brandenburg (2001)	A.104	180	199	250
Brandenburg et al. (1989)	A.3	174	184	232
Korpi, Brandenburg, et al. (1999)	A.82	165	180	239
Blackman & Brandenburg (2002)	A.115	149	168	214
Rüdiger & Brandenburg (1995)	A.41	149	149	199
Brandenburg, Sokoloff, & Subramanian (2012)	A.273	135	146	200

PhD students

Stephen J. Brooks:	1996–2000	(Newcastle upon Tyne)
Alberto Bigazzi:	1996–2000	(Newcastle upon Tyne and L'Aquila, Rome)
Maarit J. Korpi:	1997–1999	(Oulu U)
Nils E. L. Haugen	2000–2004	(Trondheim, NTNU)
Tarek A. Yousef	2000–2004	(Trondheim, NTNU)
Antony J. Mee	2002–2006	(Newcastle upon Tyne, co-supervisor)
Simon Candelaresi	2009–2012	(Stockholm U, Phil. Lic. in Feb. 2011)
Fabio Del Sordo	2009–2012	(Stockholm U, Phil. Lic. in Feb. 2011)
Koen Kemel	2009–2012	(Stockholm U, Phil. Lic. in Aug 2011)
Jörn Warnecke	2009–2013	(Stockholm U, Phil. Lic. in May 2011)
Sarah Jabbari	2012–2016	(Stockholm U, Phil. Lic. in May 2014)
Illa R. Losada	2013–2019	(Stockholm U, Phil. Lic. in Dec 2014)
Xiang-Yu Li	2014–2018	(Stockholm U, Phil. Lic. in May 2016)
Alberto Roper Pol	2017–2020	(University of Colorado)
Yutong He	2020–2024	(Stockholm U, Phil. Lic. in Dec 2022)

Master students: Atefeh Barekat (2013), Nousaba Nasrin Protiti (2023)

Batchelor students: Julia Asplund (2019), Gustav Larsson (2023)

Teaching experience

- *Advanced Astrophysical Fluid Dynamics* (7.5 ECTS) at Stockholm U, postgraduate level (2021)
- *Search for Life in the Universe* (44 hours) at CU-Boulder, for non-science majors (2017, spring+fall)
- *Fluid Instabilities, Waves, & Turbulence* (44 hours) at CU-Boulder, graduate level (2016)
- *Solar & Space Physics* (44 hours) at CU-Boulder, upper undergraduate level (2016)

– *Astrophysical Fluid Dynamics* (7.5 ECTS) at Stockholm U, postgraduate level (2013)

– *Astrophysical Magnetohydrodynamics* (7.5 ECTS) at Stockholm U, master level (2012)

– *Solar Physics and Magnetohydrodynamics* (7.5 ECTS) at Stockholm U, postgraduate level (2009)

– *Pencil Code tutorials*, taught in Trieste (Italy, 2009) and Aussois (France, 2009)

– *Solar Physics* (12 hours) at the IRF Kiruna (2005, 2006, 2007, 2008), postgraduate level

– *Planetary and Stellar Orbits* (24 hours) at University of Newcastle upon Tyne (1998, 1999, 2000), second year students

– *Introduction to Astrophysical Fluids* (24 hours) at University of Newcastle upon Tyne (1997, 1998, 1999), second year students

– *Fluid Flow and Cosmic Fluids* (24 hours) at University of Newcastle upon Tyne (1997, 1998, 1999), third year students

– *Relativistic Fluid Dynamics and Visualization* (24 hours) at Copenhagen University (1995/1996), shared with Åke Nordlund, postgraduate level

Notable recognitions

2014 Elected foreign member of the Royal Swedish Academy of Sciences
`https://www.kva.se/en/news/ny-ledamot-invald-i-akademien-2-3/`

2019 Honorary professor of Ilia State University (Tbilisi/Georgia)

2019 Distinguished Fellow of NYUAD (Abu Dhabi)

2022 Jesús Serra Foundation visiting fellow at the Institute of Astrophysics of the Canary Islands

Major grants

- VR project grant, "Stochastic Gravitational Wave Background from the Early Turbulent Universe" 2019-04234, January 2020 – December 2022, 4.00 MSEK (430 k$, as PI)
- NSF Astronomy and Astrophysics Research Grants (AAG), "Collaborative research: A Comprehensive Theoretical Study of Cosmic Magnetic Fields their Origin, Evolution, and Signatures" 1615100, July 2016 – June 2019, 224 k$ (as Co-I/Institutional PI; PI: Tina Kahniashvili, Carnegie Mellon University)
- Knut & Alice Wallenberg Foundation, "Bottlenecks for the growth of particles suspended in turbulent flows" January 2015 – December 2019, 44 MSEK (4.67 M$, as Co-I)
- Research Council of Norway (RCN), FRINATEK research grant "Particle transport and clustering in turbulent flows" 231444, July 2014 – June 2017, 7.25 MNOK (1.18 M$, as PI)
- VR breakthrough research grant, "Formation of active regions in the Sun" 2012-5797, January 2013 – December 2016, 4.2 MSEK (0.63 M$, as PI)
- VR project grant, "Turbulent dynamo simulation in a spherical shell segment" 621-2011-5076, January 2012 – December 2014, 1.65 MSEK (0.25 M$, as PI)
- ERC Advanced Grant, "Astrophysical Dynamos" No 227952, February 2009 – January 2014, 2.22 MEuro (2.8 M$, as PI)
- PPARC Research Grant, "Accretion Discs and Jets" PPA/G/S/1997/00284, 1998 – 2001, 270 kGBP (0.42 M$, as PI)

Fields of research

Astrophysical fluid dynamics, with emphasis on dynamo and turbulence theories; astrobiology, with emphasis on homochirality. Particular interests: solar and stellar activity, helioseismology, convection, differential rotation, galactic turbulence and magnetism, accretion discs, fractals in turbulence, relativistic hydrodynamics, early universe, relic gravitational waves, magnetospheric physics.

Organization of conferences and programs

Jan 2024 Program on Turbulence in Astrophysical Environments (KITP, Santa Barbara)
Aug 2022 Program on Magnetic field evolution in low density or strongly stratified plasmas (Stockholm)
Aug 2019 Program on Gravitational Waves from the Early-Universe (Stockholm)
Jun 2018 14th Pencil Code User Meeting (Boulder)
Jun 2015 Program on Origin, Evolution, and Signatures of Cosmological Magnetic Fields (Stockholm)
Oct 2012 12th European Workshop on Astrobiology (Stockholm)
Aug 2011 Program on Dynamo, Dynamical Systems and Topology (Stockholm)
May 2011 Program on Predictability + School on Data Assimilation (Stockholm)
Feb 2011 RädlerFest: α effect and beyond (Stockholm)
May 2010 Program on Turbulent combustion (Stockholm)
Sep 2009 Program on Solar and Stellar Cycles (Stockholm)
Mar 2008 Program on Turbulence and Dynamos (Stockholm)
Feb 2008 Program on the Origins of Homochirality (Stockholm)
Nov 2007 Joint Nordic and SwAN Astrobiology meeting (Stockholm)
Aug 2007 3rd Pencil Code User Meeting (Stockholm)
May 2007 New Trends in Radiation Hydrodynamics (Stockholm)
Jan 2006 NorFA Winter School on Astrobiology (Levitunturi, Finnish Lapland)
Jul 2005 Nordita Master Class in Physics (Hillerød)
Jan 2005 Astrobiology and Origins of Life (Copenhagen)
Jan 2005 Meeting on Nordic Science Outreach (Copenhagen)
Sep 2004 Cosmic Ray Dynamics: from Turbulent to Galactic Scale Magnetic Fields (Copenhagen)
Aug 2004 Astrobiological Problems for Physicists and Biologists (Turku, Finland)
Jan 2004 Astrobiological Problems for Physicists (Copenhagen)
Jul 2002 Nordita Master Class in Physics (Hillerød)
Jul 2001 Nordita Master Class in Physics (Hillerød)
Mar 2001 Dynamos in the Laboratory, Computer, and the Sky (Copenhagen)
Jul 2000 Nordita Master Class in Physics (Copenhagen)
Jan 2000 Physics of Accretion and Associated Outflows (Copenhagen)
May 1997 UK-MHD meeting (Newcastle, England)
Feb 1996 NorFA Winter School on Magnetic fields in Space and Astrophysics (Levitunturi, Finnish Lapland)

Invited participation in research programs

Nov 2022 Frontiers in dynamo theory: from the Earth to the stars, 3 weeks (Cambridge)
Jun 2019 Turbulent Life of Cosmic Baryons, 3 weeks (Aspen)
Feb 2011 Turbulence Theory, 1 month (Santa Barbara)
Jun 2008 Dynamo Theory, 1.5 month (Santa Barbara)
Nov 2007 Star Formation through Cosmic Time, 1 month (Santa Barbara)
Sep 2004 Magnetohydrodynamics of Stellar Interiors, 3 months (Cambridge)
Jun 2002 Dynamo Theory, 3 weeks (Aspen)
Jan 2002 Solar Magnetism and Related Astrophysics, 3 months (Santa Barbara)
Apr 2000 Astrophysical Turbulence, 3 months (Santa Barbara)
Jan 1998 Dynamics of Astrophysical Discs, 3 months (Cambridge)
Aug 1992 Dynamo Theory, 3 months (Cambridge)

Memberships

Finnish Physical Society (since 1988)
International Astronomical Union (since 1990)
American Physical Society (since 1996)
European Astrobiology Network Association (since 2005)
European Physical Society (since 2011)
Member of the Royal Swedish Academy of Sciences (Astronomy and Space Science, 2014)

Other academic activities

I am frequently consulted as a referee for the following journals: Astrophysical Journal, Astronomy & Astrophysics, Geophysical and Astrophysical Fluid Dynamics, Journal of Fluid Mechanics, Monthly Notices of the Royal Astronomical Society, Physical Review (PRL, PRD, and PRE), Physics of Plasmas, Journal of Computational Physics, Journal of Cosmology & Astroparticle Physics, New Journal of Physics. On the average my load on reviewing papers is 3 per month.

I am also regularly asked to review research proposals (NSF, PPARC, DFG, SA, ERC, NRC, VR, Hong Kong, Portugal, Austria) and to examine PhD theses (Finland, Sweden, Denmark, England, Germany, France, India, South Africa, USA). I have been an external panel member for the selection of post-docs (Finnish Academy; suomen akatemia, SA), major research grants (Deutsche Forschungsgesellschaft, DFG), and observing time (European Southern Observatories, ESO).

Administrative experience

2021–present	Deputy director of Nordita
2010–present	Editorial Board Member of Astron. Nachr.
2010–2015	Deputy director of Nordita
2008–2015	Chairman of the Swedish Astrobiology Network
2007–2009	Member of the AlbaNova/Nordita colloquium committee
2001	Director of the Helmholtz Summer School, Potsdam
2000–2002	Director of the Nordita Master Class

Other merits

Together with Wolfgang Dobler, I initiated the Pencil Code in 2001 as a public domain program for solving partial differential equations on massively parallel supercomputers. During 2008–2015 it was hosted through the subversion repository on Google Code (http://pencil-code.googlecode.com), and since 2015 it is hosted through `https://github.com/pencil-code`. It has been used for currently over 600 scientific publications; see Ref.D.5 in my full list of publications.

Public Outreach Experience

2019	Efter big bang: produktionen av gravitationsvågor (Guest lecture at on Oct. 31, ABF-huset, Sveavägen 41, Stockholm)
2014	Article in Fysikaktuellt: Sökandet efter en ny teori för solfläckar
2010	Interview "Cycles of the Sun" (British Publishers) (`http://www.nordita.org/~brandenb/Solar_Activity_10.pdf`)
2008	Podcast *Is All Life Left-Handed?* (`http://www.astrobio.net/amee/summer_2008/Radio/radio.php`)
2005	Organizer of Meeting on Nordic Science Outreach (Copenhagen)

2005 Co-authored outreach articles with Anja Andersen (Kvant and BioZoom)
1990 Extended interview in Finnish Television (Prisma program, YLE)

Language skills

Native: German
Fluent: English and Finnish
Basic knowledge: Swedish

Hobbies

Cycling, hiking, swimming. Participated in the 3 km Vansbrosimningen (`https://en.wikipedia.org/wiki/Vansbrosimningen`) and the 5 km Göta Kanalsimmet (`https://www.gotakanalsimmet.se/`).

Publications

A. Publications in refereed journals

(Highly quoted papers are denoted by an asterisk)

Submitted:

468. Brandenburg, A., & Scannapieco, E.: 2025, "Magnetically-assisted vorticity production in decaying acoustic turbulence," *Astrophys. J.*, submitted (arXiv:2501.18525)

467. Rogachevskii, I., Kleeorin, N., & Brandenburg, A.: 2025, "Theory of the kinetic helicity effect on turbulent diffusion of magnetic and scalar fields," *Astrophys. J.*, submitted (arXiv:2501.13807)

466. Brandenburg, A., Yi, L., & Wu, X.: 2025, "Inverse cascade from helical and nonhelical decaying columnar magnetic fields," *J. Plasma Phys.*, submitted (arXiv:2501.12200)

465. Brandenburg, A., Käpylä, P. J., Rogachevskii, I., & Yokoi, N.: 2025, "Helicity effect on turbulent passive and active scalar diffusivities," *Astrophys. J.*, submitted (arXiv:2501.08879)

464. Brandenburg, A., & Vishniac, E. T.: 2025, "Magnetic helicity fluxes in dynamos from rotating inhomogeneous turbulence," *Astrophys. J.*, submitted (arXiv:2412.17402)

463. Sharma, R., Brandenburg, A., Subramanian, K., & Vikman, A.: 2025, "Lattice simulations of axion-U(1) inflation: gravitational waves, magnetic fields, and black holes," *J. Cosmol. Astropart. Phys.*, submitted (arXiv:2411.04854)

462. Neronov, A., Vazza, F., Brandenburg, A., Caprini, C.: 2025, "Magnetic fields in a gamma-ray beam as a model of Porphyrion," *Astron. Astrophys.*, submitted (arXiv:2411.01640)

In press:

461. Vachaspati, T., & Brandenburg, A.: 2025, "Spectra of magnetic fields from electroweak symmetry breaking," *Phys. Rev. D*, in press (arXiv:2412.00641)

Published:

460. Dehman, C., & Brandenburg, A.: 2025, "Reality of inverse cascading in neutron star crusts," *Astron. Astrophys.* **694**, A39

459. Brandenburg, A., & Banerjee, A.: 2025, "Turbulent magnetic decay controlled by two conserved quantities," *J. Plasma Phys.* **91**, E5

458. Brandenburg, A., Iarygina, O., Sfakianakis, E. I., & Sharma, R.: 2024, "Magnetogenesis from axion-SU(2) inflation," *J. Cosmol. Astropart. Phys.* **12**, 057

457. Mtchedlidze, S., Domínguez-Fernández, P., Du, X., Carretti, E., Vazza, F., O'Sullivan, S. P., Brandenburg, A., & Kahniashvili, T.: 2024, "Intergalactic medium rotation measure of primordial magnetic fields," *Astrophys. J.* **977**, 128

456. Schober, J., Rogachevskii, I., & Brandenburg, A.: 2024, "Efficiency of dynamos from the autonomous generation of a chiral asymmetry," *Phys. Rev. D* **110**, 043515

455. Brandenburg, A., Neronov, A., & Vazza, F.: 2024, "Resistively controlled primordial magnetic turbulence decay," *Astron. Astrophys.* **687**, A186

454. Iarygina, O., Sfakianakis, E. I., Sharma, R. & Brandenburg, A.: 2024, "Backreaction of axion-SU(2) dynamics during inflation," *J. Cosmol. Astropart. Phys.* **04**, 018

453. Brandenburg, A., Clarke, E., Kahniashvili, T., Long, A. J., & Sun, G.: 2024, "Relic gravitational waves from the chiral plasma instability in the standard cosmological model," *Phys. Rev. D* **109**, 043534

452. Schober, J., Rogachevskii, I., & Brandenburg, A.: 2024, "Chiral anomaly and dynamos from inhomogeneous chemical potential fluctuations," *Phys. Rev. Lett.* **132**, 065101

451. Sharma, R., Dahl, J., Brandenburg, A., & Hindmarsh, M.: 2023, "Shallow relic gravitational wave spectrum with acoustic peak," *J. Cosmol. Astropart. Phys.* **12**, 042

450. Brandenburg, A., Sharma, R., & Vachaspati, T.: 2023, "Inverse cascading for initial MHD turbulence spectra between Saffman and Batchelor," *J. Plasma Phys.* **89**, 905890606

449. Carenza, P., Sharma, R., Marsh, M. C. D., Brandenburg, A., Müller, E.: 2023, "Magnetohydrodynamics predicts heavy-tailed distributions of axion-photon conversion," *Phys. Rev. D* **108**, 103029

448. Brandenburg, A., Kamada, K., Mukaida, K., Schmitz, K., & Schober, J.: 2023, "Chiral magnetohydrodynamics with zero total chirality," *Phys. Rev. D* **108**, 063529

447. Brandenburg, A., Elstner, D., Masada, Y., & Pipin, V.: 2023, "Turbulent processes and mean-field dynamo," *Spa. Sci. Rev.* **219**, 55

446. Brandenburg, A., & Protiti, N. N.: 2023, "Electromagnetic conversion into kinetic and thermal energies," *Entropy* **25**, 1270

445. Mizerski, K. A., Yokoi, N., & Brandenburg, A.: 2023, "Cross-helicity effect on α-type dynamo in non-equilibrium turbulence," *J. Plasma Phys.* **89**, 905890412

444. Sarin, N., Brandenburg, A., & Haskell, B.: 2023, "Confronting the neutron star population with inverse cascades," *Astrophys. J. Lett.* **952**, L21

443. Brandenburg, A., & Ntormousi, E.: 2023, "Galactic Dynamos," *Annu. Rev. Astron. Astrophys.* **61**, 561–606

442. He, Y., Roper Pol, A., & Brandenburg, A.: 2023, "Modified propagation of gravitational waves from the early radiation era," *J. Cosmol. Astropart. Phys.* **06**, 025

441. Brandenburg, A., & Larsson, G.: 2023, "Turbulence with magnetic helicity that is absent on average," *Atmosphere* **14**, 932

440. Brandenburg, A., Kamada, K., & Schober, J.: 2023, "Decay law of magnetic turbulence with helicity balanced by chiral fermions," *Phys. Rev. Res.* **5**, L022028

439. Brandenburg, A.: 2023, "Hosking integral in nonhelical Hall cascade," *J. Plasma Phys.* **89**, 175890101

438. Mtchedlidze, S., Domínguez-Fernández, P., Du, X., Schmidt, W., Brandenburg, A., Niemeyer, J., & Kahniashvili, T.: 2023, "Inflationary and phase-transitional primordial magnetic fields in galaxy clusters," *Astrophys. J.* **944**, 100

437. Brandenburg, A.: 2023, "Quadratic growth during the COVID-19 pandemic: merging hotspots and reinfections," *J. Phys. A: Math. Theor.* **56**, 044002

436. Brandenburg, A., Rogachevskii, I., & Schober, J.: 2023, "Dissipative magnetic structures and scales in small-scale dynamos," *Mon. Not. Roy. Astron. Soc.* **518**, 6367–6375

435. Brandenburg, A., Zhou, H., & Sharma, R.: 2023, "Batchelor, Saffman, and Kazantsev spectra in galactic small-scale dynamos," *Mon. Not. Roy. Astron. Soc.* **518**, 3312–3325

434. Sharma, R., & Brandenburg, A.: 2022, "Low frequency tail of gravitational wave spectra from hydromagnetic turbulence," *Phys. Rev. D* **106**, 103536

433. Zhou, H., Sharma, R., & Brandenburg, A.: 2022, "Scaling of the Hosking integral in decaying magnetically-dominated turbulence," *J. Plasma Phys.* **88**, 905880602

432. Sinha, S., Gupta, O., Singh, V., Lekshmi, B., Nandy, D., Mitra, D., Chatterjee, S., Bhattacharya, S., Chatterjee, S., Srivastava, N., Brandenburg, A., & Pal, S.: 2022, "A comparative analysis of machine-learning models for solar flare forecasting: Identifying high-performing active region flare indicators," *Astrophys. J.* **935**, 45

431. Li, X.-Y., Mehlig, B., Svensson, G., Brandenburg, A., & Haugen, N. E. L.: 2022, "Collision fluctuations of lucky droplets with superdroplets," *J. Atmos. Sci.* **79**, 1821–1835

430. Käpylä, M. J., Rheinhardt, M., & Brandenburg, A.: 2022, "Compressible test-field method and its application to shear dynamos," *Astrophys. J.* **932**, 8

429. Kahniashvili, T., Clarke, E., Stepp, J., & Brandenburg, A.: 2022, "Big bang nucleosynthesis limits and relic gravitational wave detection prospects," *Phys. Rev. Lett.* **128**, 221301

428. Brandenburg, A., & Ntormousi, E.: 2022, "Dynamo effect in unstirred self-gravitating turbulence," *Mon. Not. Roy. Astron. Soc.* **513**, 2136–2151

427. Mtchedlidze, S., Domínguez-Fernández, P., Du, X., Brandenburg, A., Kahniashvili, T., O'Sullivan, S., Schmidt, W., & Brüggen, M.: 2022, "Evolution of primordial magnetic fields during large-scale structure formation," *Astrophys. J.* **929**, 127

426. Roper Pol, A., Mandal, A., Brandenburg, A., & Kahniashvili, T.: 2022, "Polarization of gravitational waves from helical MHD turbulent sources," *J. Cosmol. Astropart. Phys.* **04**, 019

425. Schober, J., Rogachevskii, I., & Brandenburg, A.: 2022, "Production of a chiral magnetic anomaly with emerging turbulence and mean-field dynamo action," *Phys. Rev. Lett.* **128**, 065002

424. Schober, J., Rogachevskii, I., & Brandenburg, A.: 2022, "Dynamo instabilities in plasmas with inhomogeneous chiral chemical potential," *Phys. Rev. D* **105**, 043507

423. Haugen, N. E. L., Brandenburg, A., Sandin, C., & Mattsson, L.: 2022, "Spectral characterisation of inertial particle clustering in turbulence," *J. Fluid Mech.* **934**, A37

422. Brandenburg, A., He, Y., & Sharma, R.: 2021, "Simulations of helical inflationary magnetogenesis and gravitational waves," *Astrophys. J.* **922**, 192

421. Brandenburg, A., & Sharma, R.: 2021, "Simulating relic gravitational waves from inflationary magnetogenesis," *Astrophys. J.* **920**, 26

420. Brandenburg, A., & Das, U.: 2021, "Turbulent radiative diffusion and turbulent Newtonian cooling," *Phys. Fluids* **33**, 095125

419. Brandenburg, A., Clarke, E., He, Y., & Kahniashvili, T.: 2021, "Can we observe the QCD phase transition-generated gravitational waves through pulsar timing arrays?" *Phys. Rev. D* **104**, 043513

418. He, Y., Brandenburg, A., & Sinha, A.: 2021, "Spectrum of turbulence-sourced gravitational waves as a constraint on graviton mass," *J. Cosmol. Astropart. Phys.* **07**, 015

417. Brandenburg, A., Gogoberidze, G., Kahniashvili, T., Mandal, S., & Roper Pol, A., & Shenoy, N.: 2021, "The scalar, vector, and tensor modes in gravitational wave turbulence simulations," *Class. Quantum Grav.* **38**, 145002

416. Brandenburg, A., He, Y., Kahniashvili, T., Rheinhardt, M., & Schober, J.: 2021, "Gravitational waves from the chiral magnetic effect," *Astrophys. J.* **911**, 110

415. Blanco, N., Stafford, K., Lavoie, M.-C., Brandenburg, A., Górna, M. W., & Merski, M.: 2021, "A simple model for the total number of SARS-CoV-2 infections on a national level," *Epidemiology and Infection* **149**, e80

414. Jakab, P., & Brandenburg, A.: 2021, "The effect of a dynamo-generated field on the Parker wind," *Astron. Astrophys.* **647**, A18

413. Kahniashvili, T., Brandenburg, A., Gogoberidze, G., Mandal, S., & Roper Pol, A.: 2021, "Circular polarization of gravitational waves from early-universe helical turbulence," *Phys. Rev. Res.* **3**, 013193

412. Pencil Code Collaboration: Brandenburg, A., Johansen, A., Bourdin, P. A., Dobler, W., Lyra, W., Rheinhardt, M., Bingert, S., Haugen, N. E. L., Mee, A., Gent, F., Babkovskaia, N., Yang, C.-C., Heinemann, T., Dintrans, B., Mitra, D., Candelaresi, S., Warnecke, J., Käpylä, P. J., Schreiber, A., Chatterjee, P., Käpylä, M. J., Li, X.-Y., Krüger, J., Aarnes, J. R., Sarson, G. R., Oishi, J. S., Schober, J., Plasson, R., Sandin, C., Karchniwy, E., Rodrigues, L. F. S., Hubbard, A., Guerrero, G., Snodin, A., Losada, I. R., Pekkilä, J., & Qian, C.: 2021, "The Pencil Code, a modular MPI code for partial differential equations and particles: multipurpose and multiuser-maintained," *J. Open Source Softw.* **6**, 2807

411. Käpylä, M. J., Álvarez Vizoso, J., Rheinhardt, M., Brandenburg, A., & Singh, N. K.: 2020, "On the existence of shear–current effects in magnetized burgulence," *Astrophys. J.* **905**, 179

410. Roper Pol, A., Mandal, S., Brandenburg, A., Kahniashvili, T., & Kosowsky, A.: 2020, "Numerical Simulations of Gravitational Waves from Early-Universe Turbulence," *Phys. Rev. D* **102**, 083512

409. Brandenburg, A.: 2020, "Piecewise quadratic growth during the 2019 novel coronavirus epidemic," *Infectious Disease Modelling* **5**, 681–690

408. Brandenburg, A.: 2020, "Hall cascade with fractional magnetic helicity in neutron star crusts," *Astrophys. J.* **901**, 18

407. Prabhu, A., Brandenburg, A., Käpylä, M. J., & Lagg, A.: 2020, "Helicity proxies from linear polarisation of solar active regions," *Astron. Astrophys.* **641**, A46

406. Asplund, J., Johannesson, G., & Brandenburg, A.: 2020, "On the measurement of handedness in *Fermi* Large Area Telescope data," *Astrophys. J.* **898**, 124

405. Brandenburg, A., Durrer, R., Huang, Y., Kahniashvili, T., Mandal, S., & Mukohyama S.: 2020, "Primordial magnetic helicity evolution with a homogeneous magnetic field from inflation," *Phys. Rev. D* **102**, 02353

404. Brandenburg, A., & Furuya, R. S.: 2020, "Application of a helicity proxy to edge-on galaxies," *Mon. Not. Roy. Astron. Soc.* **496**, 4749–4759

403. Pusztai, I., Juno, J., Brandenburg, A., TenBarge, J. M., Hakim, A., Francisquez, M., & Sundström, A.: 2020, "Dynamo in weakly collisional nonmagnetized plasmas impeded by Landau damping of magnetic fields," *Phys. Rev. Lett.* **124**, 255102

402. Brandenburg, A., & Brüggen, M.: 2020, "Hemispheric handedness in the Galactic synchrotron polarization foreground," *Astrophys. J. Lett.* **896**, L14

401. Käpylä, P. J., Rheinhardt, M., Brandenburg, A., & Käpylä, M. J.: 2020, "Turbulent viscosity and effective magnetic Prandtl number from simulations of isotropically forced turbulence," *Astron. Astrophys.* **636**, A93

400. Brandenburg, A., & Boldyrev, S.: 2020, "The turbulent stress spectrum in the inertial and subinertial ranges," *Astrophys. J.* **892**, 80

399. Brandenburg, A., & Chen, L.: 2020, "The nature of mean-field generation in three classes of optimal dynamos," *J. Plasma Phys.* **86**, 905860110

398. Brandenburg, A., & Scannapieco, E.: 2020, "Magnetic helicity dissipation and production in an ideal MHD code," *Astrophys. J.* **889**, 55

397. Li, X.-Y., Brandenburg, A., Svensson, G., Haugen, N. E. L., Mehlig, B., & Rogachevskii, I.: 2020, "Condensational and collisional growth of cloud droplets in a turbulent environment," *J. Atmosph. Sci.* **77**, 337–353

396. Singh, N. K., Raichur, H., Käpylä, M. J., Rheinhardt, M., Brandenburg, A., & Käpylä, P. J.: 2020, "*f*-mode strengthening from a localized bipolar subsurface magnetic field," *Geophys. Astrophys. Fluid Dyn.* **114**, 196–212

395. Brandenburg, A., & Das, U.: 2020, "The time step constraint in radiation hydrodynamics," *Geophys. Astrophys. Fluid Dyn.* **114**, 162–195

394. Roper Pol, A., Brandenburg, A., Kahniashvili, T., Kosowsky, A., & Mandal, S.: 2020, "The timestep constraint in solving the gravitational wave equations sourced by hydromagnetic turbulence," *Geophys. Astrophys. Fluid Dyn.* **114**, 130–161

393. Schober, J., Brandenburg, A., & Rogachevskii, I.: 2020, "Chiral fermion asymmetry in high-energy plasma simulations," *Geophys. Astrophys. Fluid Dyn.* **114**, 106–129

392. Qian, C., Wang, C., Liu, J., Brandenburg, A., Haugen, N. E. L., & Liberman, M.: 2020, "Convergence properties of detonation simulations," *Geophys. Astrophys. Fluid Dyn.* **114**, 58–76

391. Käpylä, P. J., Gent, F. A., Olspert, N., Käpylä, M. J., & Brandenburg, A.: 2020, "Sensitivity to luminosity, centrifugal force, and boundary conditions in spherical shell convection," *Geophys. Astrophys. Fluid Dyn.* **114**, 8–34

390. Brandenburg, A.: 2019, "A global two-scale helicity proxy from π-ambiguous solar magnetic fields," *Astrophys. J.* **883**, 119

389. Gosain, S., & Brandenburg, A.: 2019, "Spectral magnetic helicity of solar active regions between 2006 and 2017," *Astrophys. J.* **882**, 80

388. Brandenburg, A.: 2019, "The limited roles of autocatalysis and enantiomeric cross-inhibition in achieving homochirality in dilute systems," *Orig. Life Evol. Biosph.* **49**, 49–60

387. Brandenburg, A., & Rempel, M.: 2019, "Reversed dynamo at small scales and large magnetic Prandtl number," *Astrophys. J.* **879**, 57

386. Brandenburg, A.: 2019, "Ambipolar diffusion in large Prandtl number turbulence," *Mon. Not. Roy. Astron. Soc.* **487**, 2673–2684

385. Käpylä, P. J., Viviani, M., Käpylä, M. J., Brandenburg, A., & Spada, F.: 2019, "Effects of a subadiabatic layer on convection and dynamos in spherical wedge simulations," *Geophys. Astrophys. Fluid Dyn.* **113**, 149–183

384. Schober, J., Brandenburg, A., Rogachevskii, I., & Kleeorin, N.: 2019, "Energetics of turbulence generated by chiral MHD dynamos," *Geophys. Astrophys. Fluid Dyn.* **113**, 107–130

383. Brandenburg, A., Kahniashvili, T., Mandal, S., Roper Pol, A., Tevzadze, A. G., & Vachaspati, T.: 2019, "Dynamo effect in decaying helical turbulence," *Phys. Rev. Fluids*, **4**, 024608

382. Li, X.-Y., Svensson, G., Brandenburg, A., & Haugen, N. E. L.: 2019, "Cloud droplet growth due to supersaturation fluctuations in stratiform clouds," *Atmosph. Chem. Phys.* **19**, 639–648

381. Bracco, A., Candelaresi, S., Del Sordo, F., & Brandenburg, A.: 2019, "Is there a left-handed magnetic field in the solar neighborhood? Exploring helical magnetic fields in the interstellar medium through dust polarization power spectra," *Astron. Astrophys.* **621**, A97

380. Brandenburg, A., Bracco, A., Kahniashvili, T., Mandal, S., Roper Pol, A., Petrie, G. J. D., & Singh, N. K.: 2019, "E and B polarizations from inhomogeneous and solar surface turbulence," *Astrophys. J.* **870**, 87

379. Losada, I. R., Warnecke, J., Brandenburg, A., Kleeorin, N., & Rogachevskii, I.: 2019, "Magnetic bipoles in rotating turbulence with coronal envelope," *Astron. Astrophys.* **621**, A61

378. Brandenburg, A.: 2018, "Magnetic helicity and fluxes in an inhomogeneous alpha squared dynamo," *Astron. Nachr.* **339**, 631–640

377. Brandenburg, A., & Oughton, S.: 2018, "Cross-helically forced and decaying hydromagnetic turbulence," *Astron. Nachr.* **339**, 641–646

376. Bourdin, Ph.-A., & Brandenburg, A.: 2018, "Magnetic helicity from multipolar regions on the solar surface," *Astrophys. J.* **869**, 3

375. Bourdin, Ph.-A., Singh, N. K., & Brandenburg, A.: 2018, "Magnetic helicity reversal in the corona at small plasma beta," *Astrophys. J.* **869**, 2

374. Rogachevskii, I., Kleeorin, N., & Brandenburg, A.: 2018, "Compressibility effects in turbulent MHD and passive scalar transport: mean-field theory," *J. Plasma Phys.* **84**, 735840502

373. Li, X.-Y., Brandenburg, A., Svensson, G., Haugen, N. E. L., Mehlig, B., & Rogachevskii, I.: 2018, "Effect of turbulence on collisional growth of cloud droplets," *J. Atmosph. Sci.* **75**, 3469–3487

372. Viviani, M., Warnecke, J., Käpylä, M. J., Käpylä, P. J., Olspert, N., Cole-Kodikara, E. M., Lehtinen, J. J., & Brandenburg, A.: 2018, "Transition from axi- to nonaxisymmetric dynamo modes in spherical convection models of solar-like stars," *Astron. Astrophys.* **616**, A160

371. Brandenburg, A.: 2018, "Advances in mean-field dynamo theory and applications to astrophysical turbulence," *J. Plasma Phys.* **84**, 735840404

370. Singh, N. K., Käpylä, M. J., Brandenburg, A., Käpylä, P. J., Lagg, A., & Virtanen, I.: 2018, "Bihelical spectrum of solar magnetic helicity and its evolution," *Astrophys. J.* **863**, 182

369. Brandenburg, A., Durrer, R., Kahniashvili, T., Mandal, S., & Yin, W. W.: 2018, "Statistical properties of scale-invariant helical magnetic fields and applications to cosmology," *J. Cosmol. Astropart. Phys.* **08**, 034

368. Zhang, H., & Brandenburg, A.: 2018, "Solar kinetic energy and cross helicity spectra," *Astrophys. J. Lett.* **862**, L17

367. Brandenburg, A., Haugen, N. E. L., Li, X.-Y., & Subramanian, K.: 2018, "Varying the forcing scale in low Prandtl number dynamos," *Mon. Not. Roy. Astron. Soc.* **479**, 2827–2833

366. Käpylä, P. J., Käpylä, M. J., & Brandenburg, A.: 2018, "Small-scale dynamos in simulations of stratified turbulent convection," *Astron. Nachr.* **339**, 127–133

365. Brandenburg, A., & Chatterjee, P.: 2018, "Strong nonlocality variations in a spherical mean-field dynamo," *Astron. Nachr.* **339**, 118–126

364. Schober, J., Rogachevskii, I., Brandenburg, A., Boyarsky, A., Fröhlich, J., Ruchayskiy, O., & Kleeorin, N.: 2018, "Laminar and turbulent dynamos in chiral magnetohydrodynamics. II. Simulations," *Astrophys. J.* **858**, 124

363. Bushby, P. J., Käpylä, P. J., Masada, Y., Brandenburg, A., Favier, B., Guervilly, C., & Käpylä, M. J.: 2018, "Large-scale dynamos in rapidly rotating plane layer convection," *Astron. Astrophys.* **612**, A97

362. Brandenburg, A., & Giampapa, M. S.: 2018, "Enhanced stellar activity for slow antisolar differential rotation?" *Astrophys. J. Lett.* **855**, L22

361. Perri, B., & Brandenburg, A.: 2018, "Spontaneous flux concentrations from the negative effective magnetic pressure instability beneath a radiative stellar surface," *Astron. Astrophys.* **609**, A99

360. Warnecke, J., Rheinhardt, M., Käpylä, P. J., Käpylä, M. J., & Brandenburg, A.: 2018, "Turbulent transport coefficients in spherical wedge dynamo simulations of solar-like stars," *Astron. Astrophys.* **609**, A51

359. Brandenburg, A., Kahniashvili, T., Mandal, S., Roper Pol, A., Tevzadze, A. G., & Vachaspati, T.: 2017, "Evolution of hydromagnetic turbulence from the electroweak phase transition," *Phys. Rev. D* **96**, 123528

358. Kahniashvili, T., Brandenburg, A., Durrer, R., Tevzadze, A. G., & Yin, W.: 2017, "Scale-invariant helical magnetic field evolution and the duration of inflation," *J. Cosmol. Astropart. Phys.* **12**, 002

357. Singh, N. K., Rogachevskii, I., & Brandenburg, A.: 2017, "Enhancement of small-scale turbulent dynamo by large-scale shear," *Astrophys. J. Lett.* **850**, L8

356. Brandenburg, A., Schober, J., & Rogachevskii, I.: 2017, "The contribution of kinetic helicity to turbulent magnetic diffusivity," *Astron. Nachr.* **338**, 790–793

355. Rogachevskii, I., Ruchayskiy, O., Boyarsky, A., Fröhlich, J., Kleeorin, N., Brandenburg, A., & Schober, J.: 2017, "Laminar and turbulent dynamos in chiral magnetohydrodynamics. I. Theory," *Astrophys. J.* **846**, 153

354. Cameron, R. H., Dikpati, M., & Brandenburg, A.: 2017, "The global solar dynamo," *Spa. Sci. Rev.* **210**, 367–395

353. Käpylä, P. J., Rheinhardt, M., Brandenburg, A., Arlt, R., Käpylä, M. J., Lagg, A., Olspert, N., & Warnecke, J.: 2017, "Extended subadiabatic layer in simulations of overshooting convection," *Astrophys. J. Lett.* **845**, L23

352. Brandenburg, A., Schober, J., Rogachevskii, I., Kahniashvili, T., Boyarsky, A., Fröhlich, J., Ruchayskiy, O., & Kleeorin, N.: 2017, "The turbulent chiral magnetic cascade in the early universe," *Astrophys. J. Lett.* **845**, L21

351. Brandenburg, A., Ashurova, M. B., & Jabbari, S.: 2017, "Compensating Faraday depolarization by magnetic helicity in the solar corona," *Astrophys. J. Lett.* **845**, L15

350. Brandenburg, A., Mathur, S., & Metcalfe, T. S.: 2017, "Evolution of coexisting long and short period stellar activity cycles," *Astrophys. J.* **845**, 79

349. Li, X.-Y., Brandenburg, A., Haugen, N. E. L., & Svensson, G.: 2017, "Eulerian and Lagrangian approaches to multidimensional condensation and collection," *J. Adv. Model. Earth Syst.* **9**, 1116–1137

348. Jabbari, S., Brandenburg, A., Kleeorin, N., & Rogachevskii, I.: 2017, "Sharp magnetic structures from dynamos with density stratification," *Mon. Not. Roy. Astron. Soc.* **467**, 2753–2765

347. Käpylä, P. J., Käpylä, M. J., Olspert, N., Warnecke, J., & Brandenburg, A.: 2017, "Convection-driven spherical shell dynamos at varying Prandtl numbers," *Astron. Astrophys.* **599**, A4

346. Brandenburg, A.: 2017, "Analytic solution of an oscillatory migratory alpha squared stellar dynamo," *Astron. Astrophys.* **598**, A117

345. Brandenburg, A., Petrie, G. J. D., & Singh, N. K.: 2017, "Two-scale analysis of solar magnetic helicity," *Astrophys. J.* **836**, 21

344. Brandenburg, A., & Kahniashvili, T.: 2017, "Classes of hydrodynamic and magnetohydrodynamic turbulent decay," *Phys. Rev. Lett.* **118**, 055102

343. Brandenburg, A., Rogachevskii, I., & Kleeorin, N.: 2016, "Magnetic concentrations in stratified turbulence: the negative effective magnetic pressure instability," *New J. Phys.* **18**, 125011

342. Warnecke, J., Käpylä, P. J., Käpylä, M. J., & Brandenburg, A.: 2016, "Influence of a coronal envelope as a free boundary to global convective dynamo simulations," *Astron. Astrophys.* **596**, A115

341. Singh, N. K., Raichur, H., & Brandenburg, A.: 2016, "High-wavenumber solar *f*-mode strengthening prior to active region formation," *Astrophys. J.* **832**, 120

340. Brandenburg, A.: 2016, "Stellar mixing length theory with entropy rain," *Astrophys. J.* **832**, 6

339. Cole, E., Brandenburg, A., Käpylä, P. J., & Käpylä, M. J.: 2016, "Robustness of oscillatory alpha squared dynamos in spherical wedges," *Astron. Astrophys.* **593**, A134

338. Kahniashvili, T., Brandenburg, A., & Tevzadze, A. G.: 2016, "The evolution of primordial magnetic fields since their generation," *Phys. Scr.* **91**, 104008

337. Bhat, P., Subramanian, K., & Brandenburg, A.: 2016, "A unified large/small-scale dynamo in helical turbulence," *Mon. Not. Roy. Astron. Soc.* **461**, 240–247

336. Jabbari, S., Brandenburg, A., Mitra, D., Kleeorin, N., & Rogachevskii, I.: 2016, "Turbulent reconnection of magnetic bipoles in stratified turbulence," *Mon. Not. Roy. Astron. Soc.* **459**, 4046–4056

335. Warnecke, J., Losada, I. R., Brandenburg, A., Kleeorin, N., & Rogachevskii, I.: 2016, "Bipolar region formation in stratified two-layer turbulence," *Astron. Astrophys.* **589**, A125

334. Käpylä, M. J., Käpylä, P. J., Olspert, N., Brandenburg, A., Warnecke, J., Karak, B. B., & Pelt, J.: 2016, "Multiple dynamo modes as a mechanism for long-term solar activity variations," *Astron. Astrophys.* **589**, A56

333. Käpylä, P. J., Brandenburg, A., Kleeorin, N., Käpylä, M. J., & Rogachevskii, I.: 2016, "Magnetic flux concentrations from turbulent stratified convection," *Astron. Astrophys.* **588**, A150

332. Yokoi, N., & Brandenburg, A.: 2016, "Large-scale flow generation by inhomogeneous helicity," *Phys. Rev. E* **93**, 033125

331. Zhang, H., Brandenburg, A., & Sokoloff, D. D.: 2016, "Evolution of magnetic helicity and energy spectra of solar active regions," *Astrophys. J.* **819**, 146

330. Brandenburg, A.: 2016, "A new twist in simulating solar flares," *Physics* **9**, 26

329. Bhat, P., & Brandenburg, A.: 2016, "Hydraulic effects in a radiative atmosphere with ionization," *Astron. Astrophys.* **587**, A90

328. Karak, B. B., & Brandenburg, A.: 2016, "Is the small-scale magnetic field correlated with the dynamo cycle?" *Astrophys. J.* **816**, 28

327. Miesch, M., Matthaeus, W., Brandenburg, A., Petrosyan, A., Pouquet, A., Cambon, C., Jenko, F., Uzdensky, D., Stone, J., Tobias, S., Toomre, J., & Velli, M.: 2015, "Large-eddy simulations of magnetohydrodynamic turbulence in space and astrophysics," *Spa. Sci. Rev.* **194**, 97–137

326. Andrievsky, A., Brandenburg, A., Noullez, A., & Zheligovsky, V.: 2015, "Negative magnetic eddy diffusivities from the test-field method and multiscale stability theory," *Astrophys. J.* **811**, 135

325. Jabbari, S., Brandenburg, A., Kleeorin, N., Mitra, D., & Rogachevskii, I.: 2015, "Bipolar magnetic spots from dynamos in stratified spherical shell turbulence," *Astrophys. J.* **805**, 166

324. Karak, B. B., Kitchatinov, L. L., & Brandenburg, A.: 2015, "Hysteresis between distinct modes of turbulent dynamos," *Astrophys. J.* **803**, 95

323. Karak, B. B., Käpylä, M. J., Käpylä, P. J., Brandenburg, A., Olspert, N., & Pelt, J.: 2015, "Magnetically controlled stellar differential rotation near the transition from solar to anti-solar profiles," *Astron. Astrophys.* **576**, A26

322. Brandenburg, A., Kahniashvili, T., & Tevzadze, A. G.: 2015, "Nonhelical inverse transfer of a decaying turbulent magnetic field," *Phys. Rev. Lett.* **114**, 075001

321. Singh, N. K., Brandenburg, A., Chitre, S. M., & Rheinhardt, M.: 2015, "Properties of p- and f-modes in hydromagnetic turbulence," *Mon. Not. Roy. Astron. Soc.* **447**, 3708–3722

320. Brandenburg, A., Hubbard, A., & Käpylä, P. J.: 2015, "Dynamical quenching with non-local alpha and downward pumping," *Astron. Nachr.* **336**, 91–96

319. Barekat, A., & Brandenburg, A.: 2014, "Near-polytropic stellar simulations with a radiative surface," *Astron. Astrophys.* **571**, A68

318. Warnecke, J., Käpylä, P. J., Käpylä, M. J., & Brandenburg, A.: 2014, "On the cause of solar-like equatorward migration in global convective dynamo simulations," *Astrophys. J. Lett.* **796**, L12

317. Subramanian, K., & Brandenburg, A.: 2014, "Traces of large-scale dynamo action in the kinematic stage," *Mon. Not. Roy. Astron. Soc.* **445**, 2930–2940

316. Singh, N. K., Brandenburg, A., & Rheinhardt, M.: 2014, "Fanning out of the solar f-mode in presence of nonuniform magnetic fields?" *Astrophys. J. Lett.* **795**, L8

315. Käpylä, P. J., Käpylä, M. J., & Brandenburg, A.: 2014, "Confirmation of bistable stellar differential rotation profiles," *Astron. Astrophys.* **570**, A43

314. Karak, B. B., Rheinhardt, M., Brandenburg, A., Käpylä, P. J., & Käpylä, M. J.: 2014, "Quenching and anisotropy of hydromagnetic turbulent transport," *Astrophys. J.* **795**, 16

313. Mitra, D., Brandenburg, A., Kleeorin, N., Rogachevskii, I.: 2014, "Intense bipolar structures from stratified helical dynamos," *Mon. Not. Roy. Astron. Soc.* **445**, 761–769

312. Jabbari, S., Brandenburg, A., Losada, I. R., Kleeorin, N., & Rogachevskii, I.: 2014, "Magnetic flux concentrations from dynamo-generated fields," *Astron. Astrophys.* **568**, A112

311. Candelaresi, S., Hillier, A., Maehara, H., Brandenburg, A., & Shibata, K.: 2014, "Superflare occurrence and energies on G-, K- and M-type dwarfs," *Astrophys. J.* **792**, 67

310. Modestov, M., Bychkov, V., Brodin, G., Marklund, M., & Brandenburg, A.: 2014, "Evolution of magnetic field generated by the Kelvin-Helmholtz instability," *Phys. Plasmas* **21**, 072126

309. Väisälä, M. S., Brandenburg, A., Mitra, D., Käpylä, P. J., & Mantere, M. J.: 2014, "Quantifying the effect of turbulent magnetic diffusion on the growth rate of the magneto-rotational instability," *Astron. Astrophys.* **567**, A139

308. Brandenburg, A.: 2014, "Magnetic Prandtl number dependence of the kinetic-to-magnetic dissipation ratio," *Astrophys. J.* **791**, 12

307. Mitra, D., Brandenburg, A., Dasgupta, D., Niklasson, E., & Ram, A.: 2014, "Particle energization through time-periodic helical magnetic fields," *Phys. Rev. E* **89**, 042919

306. Rheinhardt, M., Devlen, E., Rädler, K.-H., & Brandenburg, A.: 2014, "Mean-field dynamo action from delayed transport," *Mon. Not. Roy. Astron. Soc.* **441**, 116–126

305. Brandenburg, A., & Stepanov, R.: 2014, "Faraday signature of magnetic helicity from reduced depolarization," *Astrophys. J.* **786**, 91

304. Losada, I. R., Brandenburg, A., Kleeorin, N., & Rogachevskii, I.: 2014, "Magnetic flux concentrations in a polytropic atmosphere," *Astron. Astrophys.* **564**, A2

303. Zhang, H., Brandenburg, A., & Sokoloff, D. D.: 2014, "Magnetic helicity and energy spectra of a solar active region," *Astrophys. J. Lett.* **784**, L45

302. Rüdiger, G., & Brandenburg, A.: 2014, "The alpha effect in a turbulent liquid-metal plane Couette flow," *Phys. Rev. E* **89**, 033009

301. Brandenburg, A., Gressel, O., Jabbari, S., Kleeorin, N., & Rogachevskii, I.: 2014, "Mean-field and direct numerical simulations of magnetic flux concentrations from vertical field," *Astron. Astrophys.* **562**, A53

300. Cole, E., Käpylä, P. J., Mantere, M. J., & Brandenburg, A.: 2014, "An azimuthal dynamo wave in spherical shell convection," *Astrophys. J. Lett.* **780**, L22

299. Warnecke, J., Käpylä, P. J., Mantere, M. J., & Brandenburg, A.: 2013, "Spoke-like differential rotation in a convective dynamo with a coronal envelope," *Astrophys. J.* **778**, 141

298. Käpylä, P. J., Mantere, M. J., Cole, E., Warnecke, J., & Brandenburg, A.: 2013, "Effects of enhanced stratification on equatorward dynamo wave propagation," *Astrophys. J.* **778**, 41

297. Brandenburg, A., & Lazarian, A.: 2013, "Astrophysical hydromagnetic turbulence," *Spa. Sci. Rev.* **178**, 163–200

296. Bykov, A. M., Brandenburg, A., Malkov, M. A., & Osipov, S. M.: 2013, "Microphysics of cosmic ray driven plasma instabilities," *Spa. Sci. Rev.* **178**, 201–232

295. Warnecke, J., Losada, I. R., Brandenburg, A., Kleeorin, N., & Rogachevskii, I.: 2013, "Bipolar magnetic structures driven by stratified turbulence with a coronal envelope," *Astrophys. J. Lett.* **777**, L37

294. Brandenburg, A., Kleeorin, N., & Rogachevskii, I.: 2013, "Self-assembly of shallow magnetic spots through strongly stratified turbulence," *Astrophys. J. Lett.* **776**, L23

293. Rempel, E. L., Chian, A. C.-L., Brandenburg, A., Muñoz, P. R., & Shadden, S. C.: 2013, "Coherent structures and the saturation of a nonlinear dynamo," *J. Fluid Mech.* **729**, 309–329

292. Kemel, K., Brandenburg, A., Kleeorin, N., Mitra, D., & Rogachevskii, I.: 2013, "Active region formation through the negative effective magnetic pressure instability," *Solar Phys.* **287**, 293–313

291. Jabbari, S., Brandenburg, A., Kleeorin, N., Mitra, D., & Rogachevskii, I.: 2013, "Surface flux concentrations in a spherical alpha squared dynamo," *Astron. Astrophys.* **556**, A106

290. Losada, I. R., Brandenburg, A., Kleeorin, N., & Rogachevskii, I.: 2013, "Competition of rotation and stratification in flux concentrations," *Astron. Astrophys.* **556**, A83

289. Mitra, D., Wettlaufer, J. S., & Brandenburg, A.: 2013, "Can planetesimals form by collisional fusion?" *Astrophys. J.* **773**, 120

288. Kemel, K., Brandenburg, A., Kleeorin, N., & Rogachevskii, I.: 2013, "Non-uniformity effects in the negative effective magnetic pressure instability," *Phys. Scr.* **T155**, 014027

287. Svedin, A., Cuéllar, M. C., & Brandenburg, A.: 2013, "Data assimilation for stratified convection," *Mon. Not. Roy. Astron. Soc.* **433**, 2278–2285

286. Devlen, E., Brandenburg, A., & Mitra, D.: 2013, "A mean field dynamo from negative eddy diffusivity," *Mon. Not. Roy. Astron. Soc.* **432**, 1651–1657

285. Kahniashvili, T., Tevzadze, A. G., Brandenburg, A., & Neronov, A.: 2013, "Evolution of primordial magnetic fields from phase transitions," *Phys. Rev. D* **87**, 083007

284. Candelaresi, S., & Brandenburg, A.: 2013, "Kinetic helicity needed to drive large-scale dynamos" *Phys. Rev. E* **87**, 043104

283. Käpylä, P. J., Mantere, M. J., & Brandenburg, A.: 2013, "Oscillatory large-scale dynamos from Cartesian convection simulations," *Geophys. Astrophys. Fluid Dyn.* **107**, 244–257

282. Brandenburg, A., & Rädler, K.-H.: 2013, "Yoshizawa's cross-helicity effect and its quenching," *Geophys. Astrophys. Fluid Dyn.* **107**, 207–217

281. Del Sordo, F., Guerrero, G., & Brandenburg, A.: 2013, "Turbulent dynamo with advective magnetic helicity flux," *Mon. Not. Roy. Astron. Soc.* **429**, 1686–1694

280. Brandenburg, A., Gressel, O., Käpylä, P. J., Kleeorin, N., Mantere, M. J., Rogachevskii, I.: 2013, "New scaling for the alpha effect in slowly rotating turbulence," *Astrophys. J.* **762**, 127

279. Losada, I. R., Brandenburg, A., Kleeorin, N., Mitra, D., & Rogachevskii, I.: 2012, "Rotational effects on the negative magnetic pressure instability," *Astron. Astrophys.* **548**, A49

278. Kahniashvili, T., Brandenburg, A., Campanelli, L., Ratra, B., & Tevzadze, A. G.: 2012, "Evolution of inflation-generated magnetic field through phase transitions," *Phys. Rev. D* **86**, 103005

277. Tevzadze, A. G., Kisslinger, L., Brandenburg, A., & Kahniashvili, T.: 2012, "Magnetic fields from QCD phase transitions," *Astrophys. J.* **759**, 54

276. Warnecke, J., Käpylä, P. J., Mantere, M. J., & Brandenburg, A.: 2012, "Ejections of magnetic structures above a spherical wedge driven by a convective dynamo with differential rotation," *Solar Phys.* **280**, 299–319

275. Kemel, K., Brandenburg, A., Kleeorin, N., Mitra, D., & Rogachevskii, I.: 2012, "Spontaneous formation of magnetic flux concentrations in stratified turbulence," *Solar Phys.* **280**, 321–333

274. Haugen, N. E. L., Kleeorin, N., Rogachevskii, I., & Brandenburg, A.: 2012, "Detection of the phenomenon of turbulent thermal diffusion in numerical simulations," *Phys. Fluids* **24**, 075106

273. Brandenburg, A., Sokoloff, D., & Subramanian, K.: 2012, "Current status of turbulent dynamo theory: From large-scale to small-scale dynamos," *Spa. Sci. Rev.* **169**, 123–157

272. Warnecke, J., Brandenburg, A., & Mitra, D.: 2012, "Magnetic twist: a source and property of space weather," *J. Spa. Weather Spa. Clim.* **2**, A11

271. Käpylä, P. J., Mantere, M. J., & Brandenburg, A.: 2012, "Cyclic magnetic activity due to turbulent convection in spherical wedge geometry," *Astrophys. J. Lett.* **755**, L22

270. Bonanno, A., Brandenburg, A., Del Sordo, F., & Mitra, D.: 2012, "Breakdown of chiral symmetry during saturation of the Tayler instability," *Phys. Rev. E* **86**, 016313

269. Snellman, J. E., Rheinhardt, M., Käpylä, P. J., Mantere, M. J., & Brandenburg, A.: 2012, "Mean-field closure parameters for passive scalar turbulence," *Phys. Scr.* **86**, 018406

268. Rempel, E. L., Chian, A. C.-L., & Brandenburg, A.: 2012, "Lagrangian chaos in an ABC-forced nonlinear dynamo," *Phys. Scr.* **86**, 018405

267. Rogachevskii, I., Kleeorin, N., Brandenburg, A., & Eichler, D.: 2012, "Cosmic-ray current-driven turbulence and mean-field dynamo effect," *Astrophys. J.* **753**, 6

266. Käpylä, P. J., Brandenburg, A., Kleeorin, N., Mantere, M. J., & Rogachevskii, I.: 2012, "Negative effective magnetic pressure in turbulent convection," *Mon. Not. Roy. Astron. Soc.* **422**, 2465–2473

265. Brandenburg, A., Kemel, K., Kleeorin, N., & Rogachevskii, I.: 2012, "The negative effective magnetic pressure in stratified forced turbulence," *Astrophys. J.* **749**, 179

264. Kitchatinov, L. L., & Brandenburg, A.: 2012, "Transport of angular momentum and chemical species by anisotropic mixing in stellar radiative interiors," *Astron. Nachr.* **333**, 230–236

263. Chan, C. K., Mitra, D., & Brandenburg, A.: 2012, "Dynamics of saturated energy condensation in two-dimensional turbulence," *Phys. Rev. E* **85**, 036315

262. Dosopoulou, F., Del Sordo, F., Tsagas, C. G., & Brandenburg, A.: 2012, "Vorticity production and survival in viscous and magnetized cosmologies," *Phys. Rev. D* **85**, 063514

261. Brandenburg, A., & Petrosyan, A.: 2012, "Reynolds number dependence of kinetic helicity decay in linearly forced turbulence," *Astron. Nachr.* **333**, 195–201

260. Hubbard, A., & Brandenburg, A.: 2012, "Catastrophic quenching in alpha–Omega dynamos revisited," *Astrophys. J.* **748**, 51

259. Brandenburg, A., Rädler, K.-H., & Kemel, K.: 2012, "Mean-field transport in stratified and/or rotating turbulence," *Astron. Astrophys.* **539**, A35

258. Mitra, D., & Brandenburg, A.: 2012, "Scaling and intermittency in incoherent alpha–shear dynamo," *Mon. Not. Roy. Astron. Soc.* **420**, 2170–2177

257. Kemel, K., Brandenburg, A., Kleeorin, N., & Rogachevskii, I.: 2012, "Properties of the negative effective magnetic pressure instability," *Astron. Nachr.* **333**, 95–100

256. Guerrero, G., Rheinhardt, M., Brandenburg, A., & Dikpati, M.: 2012, "Plasma flow versus magnetic feature-tracking speeds in the Sun," *Mon. Not. Roy. Astron. Soc.* **420**, L1–L5

255. Rheinhardt, M., & Brandenburg, A.: 2012, "Modeling spatio-temporal nonlocality in mean-field dynamos," *Astron. Nachr.* **333**, 71–77

254. Snellman, J. E., Brandenburg, A., Käpylä, P. J., & Mantere, M. J.: 2012, "Verification of Reynolds stress parameterizations from simulations," *Astron. Nachr.* **333**, 78–83

253. Käpylä, P. J., Mantere, M. J., & Brandenburg, A.: 2011, "Effects of stratification in spherical shell convection," *Astron. Nachr.* **332**, 883–890

252. Kemel, K., Brandenburg, A., & Ji, H.: 2011, "A model of driven and decaying magnetic turbulence in a cylinder," *Phys. Rev. E* **84**, 056407

251. Rogachevskii, I., Kleeorin, N., Käpylä, P. J., & Brandenburg, A.: 2011, "Pumping velocity in homogeneous helical turbulence with shear," *Phys. Rev. E* **84**, 056314

250. Plasson, R., Brandenburg, A., Jullien, L., & Bersini, H.: 2011, "Autocatalysis: at the root of self-replication," *Artif. Life* **17**, 219–236

249. Hubbard, A., Rheinhardt, M. & Brandenburg, A.: 2011, "The fratricide of alpha–Omega dynamos by their alpha squared siblings," *Astron. Astrophys.* **535**, A48

248. Rädler, K.-H., Brandenburg, A., Del Sordo, F., & Rheinhardt, M.: 2011, "Mean-field diffusivities in passive scalar and magnetic transport in irrotational flows," *Phys. Rev. E* **84**, 4

247. Brandenburg, A.: 2011, "Nonlinear small-scale dynamos at low magnetic Prandtl numbers," *Astrophys. J.* **741**, 92

246. Brandenburg, A., Kemel, K., Kleeorin, N., Mitra, D., & Rogachevskii, I.: 2011, "Detection of negative effective magnetic pressure instability in turbulence simulations," *Astrophys. J. Lett.* **740**, L50

245. Chatterjee, P., Mitra, D., Rheinhardt, M., & Brandenburg, A.: 2011, "Alpha effect due to buoyancy instability of a magnetic layer," *Astron. Astrophys.* **534**, A46

244. Warnecke, J., Brandenburg, A., & Mitra, D.: 2011, "Dynamo-driven plasmoid ejections above a spherical surface," *Astron. Astrophys.* **534**, A11

243. Chatterjee, P., Mitra, D., Brandenburg, A., & Rheinhardt, M.: 2011, "Spontaneous chiral symmetry breaking by hydromagnetic buoyancy," *Phys. Rev. E* **84**, 025403R

242. Bejarano, C., Gomez, D. O., & Brandenburg, A.: 2011, "Shear-driven instabilities in Hall-magnetohydrodynamic plasmas," *Astrophys. J.* **737**, 62

241. Candelaresi, S., & Brandenburg, A.: 2011, "Decay of helical and non-helical magnetic knots," *Phys. Rev. E* **84**, 016406

240. Plasson, R., Brandenburg, A., Jullien, L., & Bersini, H.: 2011, "Autocatalyses," *J. Phys. Chem. A* **115**, 8073–8085

239. Brandenburg, A.: 2011, "Chandrasekhar-Kendall functions in astrophysical dynamos," *Pramana J. Phys.* **77**, 67–76

238. Käpylä, P. J., Mantere, M. J., Guerrero, G., Brandenburg, A., & Chatterjee, P.: 2011, "Reynolds stress and heat flux in spherical shell convection," *Astron. Astrophys.* **531**, A162

237. Rempel, E. L., Chian, A. C.-L., & Brandenburg, A.: 2011, "Lagrangian coherent structures in a nonlinear dynamo," *Astrophys. J.* **735**, L9

236. Brandenburg, A., Subramanian, K., Balogh, A., & Goldstein, M. L.: 2011, "Scale dependence of magnetic helicity in the solar wind," *Astrophys. J.* **734**, 9

235. Del Sordo, F., & Brandenburg, A.: 2011, "Vorticity production through rotation, shear, and baroclinicity," *Astron. Astrophys.* **528**, A145

234. Brandenburg, A., & Nordlund, Å.: 2011, "Astrophysical turbulence modeling," *Rep. Prog. Phys.* **74**, 046901

233. Rüdiger, G., Kitchatinov, L. L., & Brandenburg, A.: 2011, "Cross helicity and turbulent magnetic diffusivity in the solar convection zone," *Solar Phys.* **269**, 3–12

232. Mitra, D., Moss, D., Tavakol, R., & Brandenburg, A.: 2011, "Alleviating alpha quenching by solar wind and meridional flow," *Astron. Astrophys.* **526**, A138

231. Brandenburg, A., Haugen, N. E. L., & Babkovskaia, N.: 2011, "Turbulent front speed in the Fisher equation: dependence on Damköhler number," *Phys. Rev. E* **83**, 016304

230. Candelaresi, S., Hubbard, A., Brandenburg, A., & Mitra, D.: 2011, "Magnetic helicity transport in the advective gauge family," *Phys. Plasmas* **18**, 012903

229. Hubbard, A., & Brandenburg, A.: 2011, "Magnetic helicity flux in the presence of shear," *Astrophys. J.* **727**, 11

228. Brandenburg, A.: 2011, "Dissipation in dynamos at low and high magnetic Prandtl numbers," *Astron. Nachr.* **332**, 51–56

227. Chatterjee, P., Guerrero, G., & Brandenburg, A.: 2011, "Magnetic helicity fluxes in interface and flux transport dynamos," *Astron. Astrophys.* **525**, A5

226. Babkovskaia, N., Haugen, N. E. L., Brandenburg, A.: 2011, "A high-order public domain code for direct numerical simulations of turbulent combustion," *J. Comp. Phys.* **230**, 1–12

225. Brandenburg, A., Chatterjee, P., Del Sordo, F., Hubbard, A., Käpylä, P. J., & Rheinhardt, M.: 2010, "Turbulent transport in hydromagnetic flows," *Phys. Scr.* **T142**, 014028

224. Guerrero, G., Chatterjee, P., & Brandenburg, A.,: 2010, "Shear-driven and diffusive helicity fluxes in alpha–Omega dynamos," *Mon. Not. Roy. Astron. Soc.* **409**, 1619–1630

223. Chatterjee, P., Brandenburg, A., & Guerrero, G.: 2010, "Can catastrophic quenching be alleviated by separating shear and alpha effect?" *Geophys. Astrophys. Fluid Dyn.* **104**, 591–599

222. Hubbard, A., & Brandenburg, A.: 2010, "Magnetic helicity fluxes in an alpha squared dynamo embedded in a halo," *Geophys. Astrophys. Fluid Dyn.* **104**, 577–590

221. Warnecke, J., & Brandenburg, A.: 2010, "Surface appearance of dynamo-generated large-scale fields," *Astron. Astrophys.* **523**, A19

220. Rheinhardt, M., & Brandenburg, A.: 2010, "Test-field method for mean-field coefficients with MHD background," *Astron. Astrophys.* **520**, A28

219. Käpylä, P. J., Korpi, M. J., & Brandenburg, A.: 2010, "Open and closed boundaries in large-scale convective dynamos," *Astron. Astrophys.* **518**, A22

218. Käpylä, P. J., Brandenburg, A., Korpi, M. J., Snellman, J. E., & Narayan, R.: 2010, "Angular momentum transport in convectively unstable shear flows," *Astrophys. J.* **719**, 67–76

217. Mitra, D., Tavakol, R., Käpylä, P. J., & Brandenburg, A.: 2010, "Oscillatory migrating magnetic fields in helical turbulence in spherical domains," *Astrophys. J. Lett.* **719**, L1–L4

216. Madarassy, E. J. M., & Brandenburg, A.: 2010, "Calibrating passive scalar transport in shear-flow turbulence," *Phys. Rev. E* **82**, 016304

215. Kahniashvili, T., Brandenburg, A., Tevzadze, A. G., & Ratra, B.: 2010, "Numerical simulations of the decay of primordial magnetic turbulence," *Phys. Rev. D* **81**, 123002

214. Del Sordo, F., Candelaresi, S., & Brandenburg, A.: 2010, "Magnetic field decay of three interlocked flux rings with zero linking number," *Phys. Rev. E* **81**, 036401

213. Käpylä, P. J., Korpi, M. J., & Brandenburg, A.: 2010, "The alpha effect in rotating convection with sinusoidal shear," *Mon. Not. Roy. Astron. Soc.* **402**, 1458–1466

212. Plasson, R., & Brandenburg, A.: 2010, "Homochirality and the need for energy," *Orig. Life Evol. Biosph.* **40**, 93–110

211. Brandenburg, A.: 2010, "Magnetic field evolution in simulations with Euler potentials," *Mon. Not. Roy. Astron. Soc.* **401**, 347–354

210. Mitra, D., Candelaresi, S., Chatterjee, P., Tavakol, R., & Brandenburg, A.: 2010, "Equatorial magnetic helicity flux in simulations with different gauges," *Astron. Nachr.* **331**, 130–135

209. Rädler, K.-H., & Brandenburg, A.: 2010, "Mean electromotive force proportional to mean flow in mhd turbulence," *Astron. Nachr.* **331**, 14–21

208. Brandenburg, A., Kleeorin, N., & Rogachevskii, I.: 2010, "Large-scale magnetic flux concentrations from turbulent stresses," *Astron. Nachr.* **331**, 5–13

207. Käpylä, P. J., Korpi, M. J., Brandenburg, A., Mitra, D., & Tavakol, R.: 2010, "Convective dynamos in spherical wedge geometry," *Astron. Nachr.* **331**, 73–81

206. Hubbard, A., & Brandenburg, A.: 2009, "Memory effects in turbulent transport," *Astrophys. J.* **706**, 712–726

205. Brandenburg, A.: 2009, "The critical role of magnetic helicity in astrophysical dynamos," *Plasma Phys. Control. Fusion* **51**, 124043

204. Sur, S., & Brandenburg, A.: 2009, "The role of the Yoshizawa effect in the Archontis dynamo," *Mon. Not. Roy. Astron. Soc.* **399**, 273–280

203. Hubbard, A., Del Sordo, F., Käpylä, P. J., & Brandenburg, A.: 2009, "The alpha effect with imposed and dynamo-generated magnetic fields," *Mon. Not. Roy. Astron. Soc.* **398**, 1891–1899

202. Brandenburg, A., Candelaresi, S., & Chatterjee, P.: 2009, "Small-scale magnetic helicity losses from a mean-field dynamo," *Mon. Not. Roy. Astron. Soc.* **398**, 1414–1422

201. Vermersch, V., & Brandenburg, A.: 2009, "Shear-driven magnetic buoyancy oscillations," *Astron. Nachr.* **330**, 797–806

*200. Käpylä, P. J., Korpi, M. J., & Brandenburg, A.: 2009, "Alpha effect and turbulent diffusion from convection," *Astron. Astrophys.* **500**, 633–646

199. Käpylä, P. J., & Brandenburg, A.: 2009, "Turbulent dynamos with shear and fractional helicity," *Astrophys. J.* **699**, 1059–1166

198. Brandenburg, A.: 2009, "Large-scale dynamos at low magnetic Prandtl numbers," *Astrophys. J.* **697**, 1206–1213

197. Käpylä, P. J., Korpi, M. J., & Brandenburg, A.: 2009, "Large-scale dynamos in rigidly rotating turbulent convection," *Astrophys. J.* **697**, 1153–1163

196. Mitra, D., Tavakol, R., Brandenburg, A., & Moss, D.: 2009, "Turbulent dynamos in spherical shell segments of varying geometrical extent," *Astrophys. J.* **697**, 923–933

195. Brandenburg, A., Svedin, A., & Vasil, G. M.: 2009, "Turbulent diffusion with rotation or magnetic fields," *Mon. Not. Roy. Astron. Soc.* **395**, 1599–1606

194. Brandenburg, A.: 2009, "Advances in theory and simulations of large-scale dynamos," *Spa. Sci. Rev.* **144**, 87–104

193. Mitra, D., Käpylä, P. J., Tavakol, R., & Brandenburg, A.: 2009, "Alpha effect and diffusivity in helical turbulence with shear," *Astron. Astrophys.* **495**, 1–8

192. Rädler, K.-H., & Brandenburg, A.: 2009, "Mean-field effects in the Galloway-Proctor flow," *Mon. Not. Roy. Astron. Soc.* **393**, 113–125

191. Liljeström, A. J., Korpi, M. J., Käpylä, P. J., Brandenburg, A., & Lyra, W.: 2009, "Turbulent stresses as a function of shear rate in a local disk model," *Astron. Nachr.* **330**, 92–99

190. Käpylä, P. J., Mitra, D., & Brandenburg, A.: 2009, "Numerical study of large-scale vorticity generation in shear-flow turbulence," *Phys. Rev. E* **79**, 016302

189. Tilgner, A., & Brandenburg, A.: 2008, "A growing dynamo from a saturated Roberts flow dynamo," *Mon. Not. Roy. Astron. Soc.* **391**, 1477–1481

*188. Käpylä, P. J., Korpi, M. J., & Brandenburg, A.: 2008, "Large-scale dynamos in turbulent convection with shear," *Astron. Astrophys.* **491**, 353–362

187. Brandenburg, A., Rädler, K.-H., Rheinhardt, M., & Subramanian, K.: 2008, "Magnetic quenching of alpha and diffusivity tensors in helical turbulence," *Astrophys. J. Lett.* **687**, L49–L52

186. Käpylä, P. J., & Brandenburg, A.: 2008, "Lambda effect from forced turbulence simulations," *Astron. Astrophys.* **488**, 9–23

185. Brandenburg, A.: 2008, "The dual role of shear in large-scale dynamos," *Astron. Nachr.* **329**, 725–731

184. Brandenburg, A.: 2008, "Turbulent protostellar discs," *Phys. Scr.* **T130**, 014016

183. Jouve, L., Brun, A. S., Arlt, R., Brandenburg, A., Dikpati, M., Bonanno, A., Käpylä, P. J., Moss, D., Rempel, M., Gilman, P., Korpi, M. J., & Kosovichev, A. G.: 2008, "A solar mean field dynamo benchmark," *Astron. Astrophys.* **483**, 949–960

182. Babkovskaia, N., Brandenburg, A., & Poutanen, J.: 2008, "Boundary layer on the surface of a neutron star," *Mon. Not. Roy. Astron. Soc.* **386**, 1038–1044

181. Dib, S., Brandenburg, A., Kim, J., Gopinathan, M., & Andre, P.: 2008, "Core mass function: the role of gravity," *Astrophys. J.* **678**, L105–L108

180. Brandenburg, A., Rädler, K.-H., & Schrinner, M.: 2008, "Scale dependence of alpha effect and turbulent diffusivity," *Astron. Astrophys.* **482**, 739–746

179. Brandenburg, A., & Spiegel, E. A.: 2008, "Modeling a Maunder minimum," *Astron. Nachr.* **329**, 351–358

178. Sur, S., Brandenburg, A., & Subramanian, K.: 2008, "Kinematic alpha effect in isotropic turbulence simulations," *Mon. Not. Roy. Astron. Soc.* **385**, L15–L19

*177. Brandenburg, A., Rädler, K.-H., Rheinhardt, M., & Käpylä, P. J.: 2008, "Magnetic diffusivity tensor and dynamo effects in rotating and shearing turbulence," *Astrophys. J.* **676**, 740–751

176. Rädler, K.-H., & Brandenburg, A.: 2008, "Alpha–effect dynamos with zero kinetic helicity," *Phys. Rev. E* **77**, 026405

175. Brandenburg, A., Käpylä, P. J., Mitra, D., Moss, D., & Tavakol, R.: 2007, "The helicity constraint in spherical shell dynamos," *Astron. Nachr.* **328**, 1118–1121

174. Käpylä, P. J., & Brandenburg, A.: 2007, "Turbulent viscosity and Λ-effect from numerical turbulence models," *Astron. Nachr.* **328**, 1006–1008

173. Brandenburg, A., Lehto, H. J., & Lehto, K. M.: 2007, "Homochirality in an early peptide world," *Astrobiol.* **7**, 725–732

172. Brandenburg, A., & Käpylä, P. J.: 2007, "Magnetic helicity effects in astrophysical and laboratory dynamos," *New J. Phys.* **9**, 305, 1–24

171. Brandenburg, A., & Subramanian, K.: 2007, "Simulations of the anisotropic kinetic and magnetic alpha effects," *Astron. Nachr.* **328**, 507–512

170. Sur, S., Subramanian, K., & Brandenburg, A.: 2007, "Kinetic and magnetic alpha effects in non-linear dynamo theory," *Mon. Not. Roy. Astron. Soc.* **376**, 1238–1250

169. Brandenburg, A., Korpi, M. J., & Mee, A. J.: 2007, "Thermal instability in shearing and periodic turbulence," *Astrophys. J.* **654**, 945–954

168. Snodin, A. P., Brandenburg, A., Mee, A. J., & Shukurov, A.: 2006, "Simulating field-aligned diffusion of a cosmic ray gas," *Mon. Not. Roy. Astron. Soc.* **373**, 643–652

167. Subramanian, K., & Brandenburg, A.: 2006, "Magnetic helicity density and its flux in weakly inhomogeneous turbulence," *Astrophys. J.* **648**, L71–L74

166. Haugen, N. E. L., & Brandenburg, A.: 2006, "Hydrodynamic and hydromagnetic energy spectra from large eddy simulations," *Phys. Fluids* **18**, 075106

165. Gustafsson, M., Brandenburg, A., Lemaire, J. L., & Field, D.: 2006, "The nature of turbulence in OMC1 at the star forming scale: observations and simulations," *Astron. Astrophys.* **454**, 815–825

164. Mee, A. J., & Brandenburg, A.: 2006, "Turbulence from localized random expansion waves," *Mon. Not. Roy. Astron. Soc.* **370**, 415–419

163. Brandenburg, A., & Dintrans, B.: 2006, "Nonaxisymmetric stability in the shearing sheet approximation," *Astron. Astrophys.* **450**, 437–444

162. Brandenburg, A.: 2006, "Magnetic helicity in primordial and dynamo scenarios of galaxies," *Astron. Nachr.* **327**, 123–130

161. Shukurov, A., Sokoloff, D., Subramanian, K., & Brandenburg, A.: 2006, "Galactic dynamo and helicity losses through fountain flow," *Astron. Astrophys.* **448**, L33–L36

160. Heinemann, T., Dobler, W., Nordlund, Å., & Brandenburg, A.: 2006, "Radiative transfer in decomposed domains," *Astron. Astrophys.* **448**, 731–737

*159. Dobler, W., Stix, M., & Brandenburg, A.: 2006, "Convection and magnetic field generation in fully convective spheres," *Astrophys. J.* **638**, 336–347

158. von Rekowski, B., & Brandenburg, A.: 2006, "Stellar dynamo driven wind braking versus disc coupling," *Astron. Nachr.* **327**, 53–71

157. Nilsson, M., Brandenburg, A., Andersen, A. C., & Höfner, S.: 2005, "Unidirectional polymerization leading to homochirality in the RNA world," *Int. J. Astrobiol.* **4**, 233–239

156. Brandenburg, A., Andersen, A. C., & Nilsson, M.: 2005, "Dissociation in a polymerization model of homochirality," *Orig. Life Evol. Biosph.* **35**, 507–521

155. Brandenburg, A.: 2005, "Turbulence and its parameterization in accretion discs," *Astron. Nachr.* **326**, 787–797

154. Multamäki, T., & Brandenburg, A.: 2005, "Spatial dynamics of homochiralization," *Int. J. Astrobiol.* **4**, 75–80

*153. Brandenburg, A., & Subramanian, K.: 2005, "Astrophysical magnetic fields and nonlinear dynamo theory," *Phys. Rep.* **417**, 1–209

152. Brandenburg, A., & Subramanian, K.: 2005, "Minimal tau approximation and simulations of the alpha effect," *Astron. Astrophys.* **439**, 835–843

151. Brandenburg, A., Chan, K. L., Nordlund, Å., & Stein, R. F.: 2005, "Effect of the radiative background flux in convection," *Astron. Nachr.* **326**, 681–692

150. Brandenburg, A., Andersen, A. C., Höfner, S., & Nilsson, M.: 2005, "Homochiral growth through enantiomeric cross-inhibition," *Orig. Life Evol. Biosph.* **35**, 225–241

149. Dintrans, B., Brandenburg, A., Nordlund, Å., & Stein, R. F.: 2005, "Spectrum and amplitudes of internal gravity waves excited by penetrative convection in solar-type stars," *Astron. Astrophys.* **438**, 365–376

148. Brandenburg, A., & Subramanian, K.: 2005, "Strong mean field dynamos require supercritical helicity fluxes," *Astron. Nachr.* **326**, 400–408

147. Christensson, M., Hindmarsh, M., & Brandenburg, A.: 2005, "Scaling laws in decaying helical 3D magnetohydrodynamic turbulence," *Astron. Nachr.* **326**, 393–399

146. Schekochihin, A. A., Haugen, N. E. L., Brandenburg, A., Cowley, S. C., Maron, J. L., & McWilliams, J. C.: 2005, "The onset of small scale dynamo at small magnetic Prandtl numbers," *Astrophys. J.* **625**, L115–L118

*145. Brandenburg, A.: 2005, "The case for a distributed solar dynamo shaped by near-surface shear," *Astrophys. J.* **625**, 539–547

144. Brandenburg, A., Haugen, N. E. L., Käpylä, P. J., & Sandin, C.: 2005, "The problem of small and large scale fields in the solar dynamo," *Astron. Nachr.* **326**, 174–185

143. Brandenburg, A., & Multamäki, T.: 2004, "How long can left and right handed life forms coexist?" *Int. J. Astrobiol.* **3**, 209–219

142. Subramanian, K., & Brandenburg, A.: 2004, "Nonlinear current helicity fluxes in turbulent dynamos and alpha quenching," *Phys. Rev. Lett.* **93**, 205001

141. Pearson, B. R., Yousef, T. A., Haugen, N. E. L., Brandenburg, A., & Krogstad, P. Å.: 2004, "Delayed correlation between turbulent energy dissipation and injection," *Phys. Rev. E* **70**, 056301

140. Brandenburg, A., & Sandin, C.: 2004, "Catastrophic alpha quenching alleviated by helicity flux and shear," *Astron. Astrophys.* **427**, 13–21

139. von Rekowski, B., Brandenburg, A., Dobler, W., & Shukurov, A.: 2004, "Outflows from dynamo active protostellar accretion discs," *Astrophys. Spa. Sci.* **292**, 493–500

138. Sarson, G. R., Shukurov, A., Nordlund, Å., Gudiksen, B., & Brandenburg, A.: 2004, "Self-regulating supernovae heating in interstellar medium simulations," *Astrophys. Spa. Sci.* **292**, 267–272

137. Haugen, N. E. L., Brandenburg, A., & Dobler, W.: 2004, "High-resolution simulations of nonhelical MHD turbulence," *Astrophys. Spa. Sci.* **292**, 53–60

136. Haugen, N. E. L., & Brandenburg, A.: 2004, "Suppression of small scale dynamo action by an imposed magnetic field," *Phys. Rev. E* **70**, 036408

135. Haugen, N. E. L., Brandenburg, A., & Mee, A. J.: 2004, "Mach number dependence of the onset of dynamo action," *Mon. Not. Roy. Astron. Soc.* **353**, 947–952

134. Haugen, N. E. L., & Brandenburg, A.: 2004, "Inertial range scaling in numerical turbulence with hyperviscosity," *Phys. Rev. E* **70**, 026405

*133. Haugen, N. E. L., Brandenburg, A., & Dobler, W.: 2004, "Simulations of nonhelical hydromagnetic turbulence," *Phys. Rev. E* **70**, 016308

132. Dintrans, B., & Brandenburg, A.: 2004, "Identification of gravity waves in hydrodynamical simulations," *Astron. Astrophys.* **421**, 775–782

131. Brandenburg, A., & Matthaeus, W. H.: 2004, "Magnetic helicity evolution in a periodic domain with imposed field," *Phys. Rev. E* **69**, 056407

130. Yousef, T. A., Haugen, N. E. L., & Brandenburg, A.: 2004, "Self-similar scaling in decaying numerical turbulence," *Phys. Rev. E* **69**, 056303

129. von Rekowski, B., & Brandenburg, A.: 2004, "Outflows and accretion in a star–disc system with stellar magnetosphere and disc dynamo," *Astron. Astrophys.* **420**, 17–32

128. Johansen, A., Andersen, A. C., & Brandenburg, A.: 2004, "Simulations of dust-trapping vortices in protoplanetary discs," *Astron. Astrophys.* **417**, 361–371

127. Brandenburg, A., Käpylä, P. J., & Mohammed, A.: 2004, "Non-Fickian diffusion and tau-approximation from numerical turbulence," *Phys. Fluids* **16**, 1020–1027

126. Shukurov, A., Sarson, G. S., Nordlund, Å., Gudiksen, B., & Brandenburg, A.: 2004, "The effects of spiral arms on the multi-phase ISM," *Astrophys. Spa. Sci.* **289**, 319–322

125. Brandenburg, A., Blackman, E. G., & Sarson, G. R.: 2003, "How magnetic helicity ejection helps large scale dynamos," *Adv. Spa. Sci.* **32**, 1835–1844

124. Yousef, T. A., Brandenburg, A., & Rüdiger, G.: 2003, "Turbulent magnetic Prandtl number and magnetic diffusivity quenching from simulations," *Astron. Astrophys.* **411**, 321–327

123. Haugen, N. E. L., Brandenburg, A., & Dobler, W.: 2003, "Is nonhelical hydromagnetic turbulence peaked at small scales?" *Astrophys. J. Lett.* **597**, L141–L144

122. Yousef, T. A., & Brandenburg, A.: 2003, "Relaxation of writhe and twist of a bi-helical magnetic field," *Astron. Astrophys.* **407**, 7–12

121. Dobler, W., Haugen, N. E. L., Yousef, T. A., & Brandenburg, A.: 2003, "Bottleneck effect in three-dimensional turbulence simulations," *Phys. Rev. E* **68**, 026304

120. Rädler, K.-H., & Brandenburg, A.: 2003, "Contributions to the theory of a two-scale homogeneous dynamo experiment," *Phys. Rev. E* **67**, 026401

119. Blackman, E. G., & Brandenburg, A.: 2003, "Doubly helical coronal ejections from dynamos and their role in sustaining the solar cycle," *Astrophys. J. Lett.* **584**, L99–L102

118. von Rekowski, B., Brandenburg, A., Dobler, W., &, Shukurov, A.: 2003, "Structured outflow from a dynamo active accretion disc," *Astron. Astrophys.* **398**, 825–844

117. Dintrans, B., Brandenburg, A., Nordlund, Å., & Stein, R. F.: 2003, "Stochastic excitation of gravity waves by overshooting convection in solar-type stars," *Astrophys. Spa. Sci.* **284**, 237–240

116. Ossendrijver, M., Stix, M., Brandenburg, A., & Rüdiger, G.: 2002, "Magnetoconvection and dynamo coefficients: II. Field direction dependent pumping of magnetic field," *Astron. Astrophys.* **394**, 735–745

115. Blackman, E. G., & Brandenburg, A.: 2002, "Dynamic nonlinearity in large scale dynamos with shear," *Astrophys. J.* **579**, 359–373

114. Saar, S. H., & Brandenburg, A.: 2002, "A new look at dynamo cycle amplitudes," *Astron. Nachr.* **323**, 357–360

113. Brandenburg, A.& Dobler, W.: 2002, "Solar and stellar dynamos – latest developments," *Astron. Nachr.* **323**, 411–416

112. Brandenburg, A., & Sokoloff, D.: 2002, "Local and nonlocal magnetic diffusion and alpha-effect tensors in shear flow turbulence," *Geophys. Astrophys. Fluid Dyn.* **96**, 319–344

111. Brandenburg, A., & Dobler, W.: 2002, "Hydromagnetic turbulence in computer simulations," *Comp. Phys. Comm.* **147**, 471–475

110. Fogedby, H. C., & Brandenburg, A.: 2002, "Solitons in the noisy Burgers equation," *Phys. Rev. E* **66**, 016604

109. Brandenburg, A., Dobler, W., & Subramanian, K.: 2002, "Magnetic helicity in stellar dynamos: new numerical experiments," *Astron. Nachr.* **323**, 99–122

108. Dobler, W., Shukurov, A., & Brandenburg, A.: 2002, "Nonlinear states of the screw dynamo," *Phys. Rev. E* **65**, 036311

107. Brandenburg, A., & Sarson, G. R.: 2002, "The effect of hyperdiffusivity on turbulent dynamos with helicity," *Phys. Rev. Lett.* **88**, 055003, 1–4

106. Arlt, R., & Brandenburg, A.: 2001, "Search for non-helical disc dynamos in simulations," *Astron. Astrophys.* **380**, 359–372

105. Brandenburg, A., & von Rekowski, B.: 2001, "Astrophysical significance of the anisotropic kinetic alpha effect," *Astron. Astrophys.* **379**, 1153–1160

104. Christensson, M., Hindmarsh, M., & Brandenburg, A.: 2001, "Inverse cascade in decaying 3D magnetohydrodynamic turbulence," *Phys. Rev. E* **64**, 056405

103. Ossendrijver, M., Stix, M., & Brandenburg, A.: 2001, "Magnetoconvection and dynamo coefficients: dependence of the alpha effect on rotation and magnetic field," *Astron. Astrophys.* **376**, 713–726

102. Brandenburg, A., Bigazzi, A., & Subramanian, K.: 2001, "The helicity constraint in turbulent dynamos with shear," *Mon. Not. Roy. Astron. Soc.* **325**, 685–692

101. Brandenburg, A.: 2001, "Magnetic mysteries," *Science* **292**, 2440–2441

100. Brandenburg, A., & Hazlehurst, J.: 2001, "Evolution of highly buoyant thermals in a stratified layer," *Astron. Astrophys.* **370**, 1092–1102

99. Bardou, A., von Rekowski, B., Dobler, W., Brandenburg, A., & Shukurov, A.: 2001, "The effects of vertical outflow on disk dynamos," *Astron. Astrophys.* **370**, 635–648

*98. Brandenburg, A.: 2001, "The inverse cascade and nonlinear alpha effect in simulations of isotropic helical hydromagnetic turbulence," *Astrophys. J.* **550**, 824–840

97. Brandenburg, A., & Dobler, W.: 2001, "Large scale dynamos with helicity loss through boundaries," *Astron. Astrophys.* **369**, 329–338

96. Sánchez-Salcedo, F. J., & Brandenburg, A.: 2001, "Dynamical friction of bodies orbiting in a gaseous sphere," *Mon. Not. Roy. Astron. Soc.* **322**, 67–78

95. Brandenburg, A., & Subramanian, K.: 2000, "Large scale dynamos with ambipolar diffusion nonlinearity," *Astron. Astrophys.* **361**, L33–L36

94. Torkelsson, U., Ogilvie, G. I., Brandenburg, A., Pringle, J. E., Nordlund, Å., & Stein, R. F.: 2000, "The response of a turbulent accretion disc to an imposed epicyclic shearing motion," *Mon. Not. Roy. Astron. Soc.* **318**, 47–57

93. Urpin, V., & Brandenburg, A.: 2000, "Non-linear magnetic diffusivity in mean-field electrodynamics," *Mon. Not. Roy. Astron. Soc.* **316**, 684–688

92. Brandenburg, A.: 2000, "Dynamo-generated turbulence and outflows from accretion discs," *Phil. Trans. Roy. Soc. Lond. A* **358**, 759–776

91. Miesch, M. S., Brandenburg, A., & Zweibel, E. G.: 2000, "Nonlocal transport of passive scalars in turbulent penetrative convection," *Phys. Rev.* **E61**, 457–467

90. Saar, S. H., & Brandenburg, A.: 1999, "Time evolution of the magnetic activity cycle period. II. Results for an expanded stellar sample," *Astrophys. J.* **524**, 295–310

89. Korpi, M. J., Brandenburg, A., Shukurov, A., & Tuominen, I.: 1999, "Evolution of a superbubble in a turbulent, multi-phased and magnetized ISM," *Astron. Astrophys.* **350**, 230–239

88. Sánchez-Salcedo, F. J., & Brandenburg, A.: 1999, "Deceleration by dynamical friction in a gaseous medium," *Astrophys. J. Lett.* **522**, L35–L38

87. Rüdiger, G., Brandenburg, A., & Pipin, V. V.: 1999, "A helicity proxy from horizontal solar flow patterns," *Astron. Nachr.* **320**, 135–140

86. Kerr, R. M., & Brandenburg, A.: 1999, "Evidence for a singularity in ideal magnetohydrodynamics: implications for fast reconnection," *Phys. Rev. Lett.* **83**, 1155–1158

85. Moss, D., & Brandenburg, A.: 1999, "Comment on 'The sunspot as a self-excited dynamo'," *Astron. Astrophys.* **346**, 1009–1010

84. Urpin, V., & Brandenburg, A.: 1999, "Magnetic drift processes in differentially rotating turbulence," *Astron. Astrophys.* **345**, 1054–1058

83. Covas, E., Tavakol, R., Tworkowski, A., Brandenburg, A., Brooke, J., & Moss, D.: 1999, "The influence of geometry and topology on axisymmetric mean field dynamos," *Astron. Astrophys.* **345**, 669–679

*82. Korpi, M. J., Brandenburg, A., Shukurov, A., Tuominen, I., & Nordlund, Å.: 1999, "A supernova regulated interstellar medium: simulations of the turbulent multiphase medium," *Astrophys. J. Lett.* **514**, L99–L102

81. Bigazzi, A., Brandenburg, A., & Moss, D.: 1999, "Vortex tube models for turbulent dynamo action," *Phys. Plasmas* **6**, 72–80

80. Sánchez-Salcedo, F. J., & Brandenburg, A., Shukurov, A.: 1998, "Turbulence and magnetic fields in clusters of galaxies," *Astron. Spac. Sci.* **263**, 87–90

79. Bigazzi, A., Brandenburg, A., & Moss, D.: 1998, "Local models of small-scale dynamo action," *J. Phys.* **IV 8**, 183–187

78. Brandenburg, A., & Schmitt, D.: 1998, "Simulations of an alpha effect due to magnetic buoyancy," *Astron. Astrophys.* **338**, L55–L58

77. Korpi, M. J., Brandenburg, A., & Tuominen, I.: 1998, "Driving interstellar turbulence by supernova explosions," *Studia Geophys. et Geod.* **42**, 410–418

76. Tworkowski, A., Covas, E., Tavakol, R., & Brandenburg, A.: 1998, "Mean field dynamos with algebraic and dynamic alpha-quenchings," *Studia Geophys. et Geod.* **42**, 350–355

75. Brandenburg, A., & Campbell, C. G.: 1998, "The radial disc structure around a magnetic neutron star: analytic and semi-analytic solutions," *Mon. Not. Roy. Astron. Soc.* **298**, 223–230

74. Brandenburg, A., Moss, D., & Soward, A. M.: 1998, "New results for the Herzenberg dynamo: steady and oscillatory solutions," *Proc. Roy. Soc. A* **454**, 1283–1300

73. Brandenburg, A., Saar, S. H., & Turpin, C. R.: 1998, "Time evolution of the magnetic activity cycle period," *Astrophys. J. Lett.* **498**, L51–L54

72. Brandenburg, A., & Urpin, V.: 1998, "Magnetic fields in young galaxies due to the cross-helicity effect," *Astron. Astrophys.* **332**, L41–L44

71. Hodgson, L. S., & Brandenburg, A.: 1998, "Turbulence effects in planetesimal formation," *Astron. Astrophys.* **330**, 1169–1174

70. Covas, E., Tavakol, R., Tworkowski, A., & Brandenburg, A.: 1998, "Axisymmetric mean field dynamos with dynamic and algebraic alpha–quenchings," *Astron. Astrophys.* **329**, 350–360

69. Tworkowski, A., Tavakol, R., Brandenburg, A., Brooke, J. M., Moss, D., & Tuominen, I.: 1998, "Intermittent behaviour in axisymmetric mean field dynamo models," *Mon. Not. Roy. Astron. Soc.* **296**, 287–295

68. Urpin, V., & Brandenburg, A.: 1998, "Magnetic and vertical shear instabilities in accretion discs," *Mon. Not. Roy. Astron. Soc.* **294**, 399–406

67. Brandenburg, A.: 1997, "Large scale turbulent dynamos," *Acta Astron. Geophys. Univ. Comenianae* **XIX**, 235–261

66. Covas, E., Tworkowski, A., Tavakol, R., & Brandenburg, A.: 1997, "Robustness of truncated alpha–Omega dynamos with a dynamic alpha," *Solar Phys.* **172**, 3–9

65. Moss, D., Brandenburg, A., & Soward, A. M.: 1997, "Steady and oscillatory solutions for the Herzenberg dynamo," *Acta Astron. Geophys. Univ. Comenianae* **XIX**, 43–50

64. Brandenburg, A., & Donner, K. J.: 1997, "The dependence of the dynamo alpha on vorticity," *Mon. Not. Roy. Astron. Soc.* **288**, L29–L33

63. Zweibel, E. G., & Brandenburg, A.: 1997, "Current sheet formation in the interstellar medium," *Astrophys. J.* **478**, 563–568

62. Brandenburg, A., Enqvist, K., & Olesen, P.: 1997, "The effect of Silk damping on primordial magnetic fields," *Phys. Lett. B.* **392**, 395–402

61. Covas, E., Tworkowski, A., Brandenburg, A., & Tavakol, R.: 1997, "Dynamos with different formulations of a dynamic alpha effect," *Astron. Astrophys.* **317**, 610–617

60. Vishniac, E. T., & Brandenburg, A.: 1997, "An incoherent alpha–Omega dynamo in accretion disks," *Astrophys. J.* **475**, 263–274

59. Nordlund, Å., Stein, R. F., & Brandenburg, A.: 1996, "Supercomputer windows into the solar convection zone," *Bull. Astr. Soc. India* **24**, 261–279

*58. Beck, R., Brandenburg, A., Moss, D., Shukurov, A., & Sokoloff, D.: 1996, "Galactic magnetism: recent developments and perspectives," *Annu. Rev. Astron. Astrophys.* **34**, 155–206

57. Torkelsson, U., Brandenburg, A., Nordlund, Å., & Stein, R. F.: 1996, "The turbulent viscosity in accretion discs," *Astrophys. Letter & Comm.* **34**, 383–388

56. Abramowicz, M. A., Brandenburg, A., & Lasota, J.-P.: 1996, "The dependence of the viscosity in accretion discs on the shear/vorticity ratio," *Mon. Not. Roy. Astron. Soc.* **281**, L21–L24

55. Brandenburg, A.: 1996, "Testing Cowling's anti-dynamo theorem near a rotating black hole," *Astrophys. J. Lett.* **465**, L115–L118

*54. Brandenburg, A., Enqvist, K., & Olesen, P.: 1996, "Large-scale magnetic fields from hydromagnetic turbulence in the very early universe," *Phys. Rev. D* **54**, 1291–1300

53. Brandenburg, A., Nordlund, Å., Stein, R. F., & Torkelsson, U.: 1996, "The disk accretion rate for dynamo generated turbulence," *Astrophys. J. Lett.* **458**, L45–L48

*52. Brandenburg, A., Jennings, R. L., Nordlund, Å., Rieutord, M., Stein, R. F., & Tuominen, I.: 1996, "Magnetic structures in a dynamo simulation," *J. Fluid Mech.* **306**, 325–352

51. Brandenburg, A., Klapper, I., & Kurths, J.: 1995, "Generalized entropies in a turbulent dynamo simulation," *Phys. Rev. E* **52**, R4602–R4605

50. Moss, D., & Brandenburg, A.: 1995, "The generation of nonaxisymmetric magnetic fields in the giant planets," *Geophys. Astrophys. Fluid Dyn.* **80**, 229–240

49. Brandenburg, A., Moss, D., & Shukurov, A.: 1995, "Galactic fountains as magnetic pumps," *Mon. Not. Roy. Astron. Soc.* **276**, 651–662

48. Brandenburg, A.: 1995, "Flux tubes and scaling in MHD dynamo simulations," *Chaos, Solitons & Fractals* **5**, 2023–2045

47. Kerr, R. M., Herring, J. R., & Brandenburg, A.: 1995, "Large-scale structure in Rayleigh-Bénard convection with impenetrable side-walls," *Chaos, Solitons & Fractals* **5**, 2047–2053

46. Torkelsson, U., & Brandenburg, A.: 1995, "Chaos in accretion disk dynamos?" *Chaos, Solitons & Fractals* **5**, 1975–1984

45. Brandenburg, A., & Zweibel, E. G.: 1995, "Effects of pressure and resistivity on the ambipolar diffusion singularity: too little, too late," *Astrophys. J.* **448**, 734–741

*44. Brandenburg, A., Nordlund, Å., Stein, R. F., & Torkelsson, U.: 1995, "Dynamo-generated turbulence and large scale magnetic fields in a Keplerian shear flow," *Astrophys. J.* **446**, 741–754

43. Brandenburg, A., Procaccia, I., & Segel, D.: 1995, "The size and dynamics of magnetic flux structures in MHD turbulence," *Phys. Plasmas* **2**, 1148–1156

42. Muhli, P., Brandenburg, A., Moss, D., & Tuominen, I.: 1995, "Multiple far-supercritical solutions for an alpha–Lambda dynamo," *Astron. Astrophys.* **296**, 700–704

41. Rüdiger, G., & Brandenburg, A.: 1995, "A solar dynamo in the overshoot layer: cycle period and butterfly diagram," *Astron. Astrophys.* **296**, 557–566

40. Tavakol, R. K., Tworkowski, A. S., Brandenburg, A., Moss, D., & Tuominen, I.: 1995, "Structural stability of axisymmetric dynamo models," *Astron. Astrophys.* **296**, 269–274

39. Moss, D., Barker, D. M., Brandenburg, A., & Tuominen, I.: 1995, "Nonaxisymmetric dynamo solutions and extended starspots on late type stars," *Astron. Astrophys.* **294**, 155–164

38. Torkelsson, U., & Brandenburg, A.: 1994, "The many incarnations of accretion disk dynamos: mixed parities and chaos for large dynamo numbers," *Astron. Astrophys.* **292**, 341–349

37. Rieutord, M., Brandenburg, A., Mangeney, A., & Drossart, P.: 1994, "Reynolds stress and differential rotation in Boussinesq convection in a rotating spherical shell," *Astron. Astrophys.* **286**, 471–480

36. Brandenburg, A., & Zweibel, E. G.: 1994, "The formation of sharp structures by ambipolar diffusion," *Astrophys. J. Lett.* **427**, L91–L94

35. Tuominen, I., Brandenburg, A., Moss, D., & Rieutord, M.: 1994, "Does solar differential rotation arise from a large scale instability?" *Astron. Astrophys.* **284**, 259–264

34. Torkelsson, U., & Brandenburg, A.: 1994, "Turbulent accretion disk dynamos," *Astron. Astrophys.* **283**, 677–691

33. Feudel, F., Feudel, U., & Brandenburg, A.: 1993, "On the bifurcation phenomena of the Kuramoto-Sivashinsky Equation," *Int. J. Bifurc. Chaos* **3**, 1299–1303

32. Moss, D., Brandenburg, A., Donner, K. J., & Thomasson, M.: 1993, "Models for the magnetic field of M81," *Astrophys. J.* **409**, 179–189

31. Brandenburg, A., Donner, K. J., Moss, D., Shukurov, A., Sokoloff, D. D., & Tuominen, I.: 1993, "Vertical magnetic fields above the discs of spiral galaxies," *Astron. Astrophys.* **271**, 36–50

30. Pulkkinen, P., Tuominen, I., Brandenburg, A., Nordlund, Å., & Stein, R. F.: 1993, "Rotational effects on convection simulated at different latitudes," *Astron. Astrophys.* **267**, 265–275

29. Jennings, R. L., Brandenburg, A., Nordlund, Å., & Stein, R.F.: 1992, "Evolution of a magnetic flux tube in two dimensional penetrative convection," *Mon. Not. Roy. Astron. Soc.* **259**, 465–473

28. Moss, D., Brandenburg, A., Tavakol, R. K., & Tuominen, I.: 1992, "Stochastic effects in mean field dynamos," *Astron. Astrophys.* **265**, 843–849

27. Brandenburg, A., Procaccia, I., Segel, D., & Vincent, A.: 1992, "Fractal level sets and multifractal fields in direct simulations of turbulence," *Phys. Rev. A* **46**, 4819–4828

26. Brandenburg, A., Moss, D., & Tuominen, I.: 1992, "Stratification and thermodynamics in mean-field dynamos," *Astron. Astrophys.* **265**, 328–344

25. Brandenburg, A.: 1992, "Energy spectra in a model for convective turbulence," *Phys. Rev. Lett.* **69**, 605–608

24. Brandenburg, A., Donner, K. J., Moss, D., Shukurov, A., Sokoloff, D. D., & Tuominen, I.: 1992, "Dynamos in discs and halos of galaxies," *Astron. Astrophys.* **259**, 453–461

23. Procaccia, I., Brandenburg, A., Jensen, M. H., Vincent, A.: 1992, "The fractal dimension of isovorticity structures in 3-dimensional turbulence," *Europhys. Lett.* **19**, 183–187

*22. Nordlund, Å., Brandenburg, A., Jennings, R. L., Rieutord, M., Ruokolainen, J., Stein, R. F., & Tuominen, I.: 1992, "Dynamo action in stratified convection with overshoot," *Astrophys. J.* **392**, 647–652

21. Moss, D., & Brandenburg, A.: 1992, "The influence of boundary conditions on the excitation of disk dynamo modes," *Astron. Astrophys.* **256**, 371–374

20. Kurths, J., & Brandenburg, A.: 1991, "Lyapunov exponents for hydromagnetic convection," *Phys. Rev. A* **44**, R3427–R3429

19. Moss, D., Brandenburg, A., & Tuominen, I.: 1991, "Properties of mean field dynamos with nonaxisymmetric alpha effect," *Astron. Astrophys.* **247**, 576–579

18. Brandenburg, A., Moss, D., Rüdiger, G., & Tuominen, I.: 1991, "Hydromagnetic alpha–Omega-type dynamos with feedback from large scale motions," *Geophys. Astrophys. Fluid Dyn.* **61**, 179–198

17. Moss, D., Tuominen, I., & Brandenburg, A.: 1991, "Nonlinear nonaxisymmetric dynamo models for cool stars," *Astron. Astrophys.* **245**, 129–135

16. Donner, K. J., & Brandenburg, A.: 1990, "Generation and interpretation of galactic magnetic fields," *Astron. Astrophys.* **240**, 289–298

15. Rädler, K.-H., Wiedemann, E., Brandenburg, A., Meinel, R., & Tuominen, I.: 1990, "Nonlinear mean-field dynamo models: Stability and evolution of three-dimensional magnetic field configurations," *Astron. Astrophys.* **239**, 413–423

14. Meinel, R., & Brandenburg, A.: 1990, "Behavior of highly supercritical alpha effect dynamos," *Astron. Astrophys.* **238**, 369–376

13. Moss, D., Tuominen, I., & Brandenburg, A.: 1990, "Buoyancy limited thin shell dynamos," *Astron. Astrophys.* **240**, 142–149

12. Donner, K. J., & Brandenburg, A.: 1990, "Magnetic field structure in differentially rotating discs," *Geophys. Astrophys. Fluid Dyn.* **50**, 121–129

11. Brandenburg, A., Moss, D., Rüdiger, G., & Tuominen, I.: 1990, "The nonlinear solar dynamo and differential rotation: A Taylor number puzzle?" *Solar Phys.* **128**, 243–251

10. Brandenburg, A., Tuominen, I., & Krause, F.: 1990, "Dynamos with a flat alpha effect distribution," *Geophys. Astrophys. Fluid Dyn.* **50**, 95–112

9. Brandenburg, A., Nordlund, Å., Pulkkinen, P., Stein, R.F., & Tuominen, I.: 1990, "3-D Simulation of turbulent cyclonic magneto-convection," *Astron. Astrophys.* **232**, 277–291

8. Jennings, R. L., Brandenburg, A., Moss, D., & Tuominen, I.: 1990, "Can stellar dynamos be modelled in less than three dimensions?," *Astron. Astrophys.* **230**, 463–473

7. Moss, D., Tuominen, I., & Brandenburg, A.: 1990, "Nonlinear dynamos with magnetic buoyancy in spherical geometry," *Astron. Astrophys.* **228**, 284–294

6. Vilhu, O., Ambruster, C. W., Neff, J. E., Linsky, J. L., Brandenburg, A., Ilyin, I. V., & Shakhovskaya, N. I.: 1989, "IUE observations of the M dwarfs CM Draconis and Rossiter 137 B: magnetic activity at saturated levels," *Astron. Astrophys.* **222**, 179–186

5. Brandenburg, A., Tuominen, I., & Rädler, K.-H.: 1989, "On the generation of non-axisymmetric magnetic fields in mean-field dynamos," *Geophys. Astrophys. Fluid Dyn.* **49**, 45–55

4. Brandenburg, A., Tuominen, I., & Moss, D.: 1989, "On the nonlinear stability of dynamo models," *Geophys. Astrophys. Fluid Dyn.* **49**, 129–141

*3. Brandenburg, A., Krause, F., Meinel, R., Moss, D., & Tuominen, I.: 1989, "The stability of nonlinear dynamos and the limited role of kinematic growth rates," *Astron. Astrophys.* **213**, 411–422

2. Brandenburg, A., & Tuominen, I.: 1988, "Variation of magnetic fields and flows during the solar cycle," *Adv. Spa. Sci.* **8**, 185–189

1. Brandenburg, A.: 1988, "Hydrodynamic Green's functions for atmospheric oscillations," *Astron. Astrophys.* **203**, 154–161

B. Invited reviews

43. Brandenburg, A., Larsson, G.: 2024, "Turbulence with magnetic helicity that is absent on average" in *Turbulence from Earth to Planets, Stars and GalaxiesCommemorative Issue Dedicated to the Memory of Jackson Rea Herring*, ed. B. Galperin, A. Pouquet, & P. Sullivan, MDPI Books, pp. 123–139

42. Brandenburg, A.: 2022, "Chirality in Astrophysics" in *Proceedings to Nobel Symposium 167: Chiral Matter*, ed. E. Babaev, D. Kharzeev, M. Larsson, A. Molochkov, & V. Zhaunerchyk, World Scientific, pp. 15–35

41. Brandenburg, A.: 2021, "Homochirality: a prerequisite or consequence of life?" in *Prebiotic Chemistry and the Origin of Life*, ed. A. Neubeck, & S. McMahon, Springer, pp. 87–115

40. Brandenburg, A.: 2020, "Magnetic field evolution in solar-type stars," in *IAUS 354: Solar and Stellar Magnetic Fields: Origins and Manifestations*, ed. A. Kosovichev, K. Strassmeier & M. Jardine, Proc. IAU Symp., Vol. **354**, pp. 169–180

39. Brandenburg, A., Candelaresi, S., & Gent, F. A.: 2020, "Introduction to The Physics and Algorithms of the Pencil Code," *Geophys. Astrophys. Fluid Dyn.* **114**, 1–7

38. Losada, I. R., Warnecke, J., Glogowski, K., Roth, M., Brandenburg, A., Kleeorin, N., & Rogachevskii, I.: 2017, "A new look at sunspot formation using theory and observations," in *IAUS 327: Fine Structure and Dynamics of the Solar Atmosphere*, ed. S. Vargas Domínguez, A. G. Kosovichev, P. Antolin, & L. Harra, Proc. IAU Symp., Vol. **12**, pp. 46–59

37. Brandenburg, A.: 2015, "Simulations of galactic dynamos," in *Magnetic fields in diffuse media*, ed. E. de Gouveia Dal Pino & A. Lazarian, Astrophys. Spa. Sci. Lib., Vol. **407**, Springer, pp. 529–555

36. Brandenburg, A.: 2013, "Non-linear and chaotic dynamo regimes," in *Solar and astrophysical dynamos and magnetic activity*, ed. A. G. Kosovichev, E. M. de Gouveia Dal Pino & Y. Yan, Proc. IAU Symp., Vol. **294**, pp. 387–398

35. Brandenburg, A., & Guerrero, G.: 2012, "Cycles and cycle modulations," in *Comparative Magnetic Minima: Characterizing quiet times in the Sun and stars*, ed. C. H. Mandrini & D. F. Webb, Proc. IAU Symp., Vol. **286**, pp. 37–48

34. Brandenburg, A.: 2011, "Simulations of astrophysical dynamos," in *Advances in Plasma Astrophysics*, ed. A. Bonanno, E. de Gouveia dal Pino, & A. Kosovichev, Proc. IAU Symp., Vol. **274**, pp. 402–409

33. Brandenburg, A., Käpylä, P. J., & Korpi, M. J.: 2011, "From convective to stellar dynamos," in *Astrophysical Dynamics: From Stars to Galaxies*, ed. N. Brummell, A. S. Brun, M. S. Miesch, & Y. Ponty, Proc. IAU Symp., Vol. **271**, pp. 279–287

32. Brandenburg, A.: 2009, "From fibril to diffuse fields during dynamo saturation," in *Solar-stellar dynamos as revealed by helio- and asteroseismology*, ed. M. Dikpati, Arentoft, T., Hernández, I. G., Lindsey, C., & Hill, F., Astron. Soc. Pac. Conf. Ser., Vol. **416**, pp. 433–442

31. Brandenburg, A.: 2009, "Nonlinear aspects of astrobiological research," in *Encyclopedia of Complexity and System Science*, ed. R. A. Meyers, Springer, pp. 3284–3300

30. Brandenburg, A.: 2008, "Paradigm shifts in solar dynamo modeling," in *Cosmic Magnetic Fields: From Planets, to Stars and Galaxies, Proceedings of the International Astronomical Union, IAU Symposium, Volume 259*, ed. K. G. Strassmeier, A. G. Kosovichev & J. E. Beckman, Cambridge University Press, pp. 159–166

29. Brandenburg, A.: 2007, "Hydromagnetic Dynamo Theory," *Scholarpedia*, p.10320 (`http://www.scholarpedia.org/article/Hydromagnetic_Dynamo_Theory`)

28. Brandenburg, A., & von Rekowski, B.: 2007, "Dynamos in accretion discs," in *Coronae of Stars and Accretion Disks*, ed. M. Massi & T. Preibisch, Mem. Soc. Astron. Ital., **78**, pp. 374–281

27. Brandenburg, A.: 2007, "Near-surface shear layer dynamics," in *Convection in Astrophysics*, ed. F. Kupka, I. W. Roxburgh & K. L. Chan, Proc. Int. Astron. Union, IAUS 239, pp. 457–466

26. Brandenburg, A.: 2007, "The solar interior – radial structure, rotation, solar activity cycle," in *Handbook of Solar-Terrestrial Environment*, ed. Y. Kamide & A. C.-L. Chian, Springer, pp. 27–54

25. Pudritz, R. E., Ouyed, R., Fendt, C., & Brandenburg, A.: 2007, "Disk winds, jets, and outflows: theoretical and computational foundations," in *Protostars and Planets V*, ed. B. Reipurth, D. Jewitt, & K. Keil, LPI, pp. 277–294

24. Brandenburg, A., Haugen, N. E. L., & Mee, A. J.: 2005, "Nonhelical turbulent dynamos: shocks and shear," in *The magnetized plasma in galaxy evolution*, ed. K.T. Chyży, K. Otmianowska-Mazur, M. Soida, and R.-J. Dettmar, Jagiellonian University, pp. 139–146

23. Brandenburg, A.: 2005, "Importance of magnetic helicity in dynamos," in *Cosmic magnetic fields, Lect. Notes Phys., Vol.* **664**, ed. R. Wielebinski & R. Beck, Springer, pp. 219–253

22. Brandenburg, A., & Blackman, E. G.: 2005, "Ejection of bi-helical fields from the sun," in *Magnetic field and Helicity in the Sun and the Heliosphere*, ed. D. Rust & B. Schmieder, Highlights of Astronomy, Vol. **13**, pp. 101–104

21. Brandenburg, A., Sandin, C., & Käpylä, P. J.: 2004, "Helical coronal ejections and their role in the solar cycle," in *Multi-Wavelength Investigations of Solar Activity*, ed. A. V. Stepanov, E. E. Benevolenskaya & A. G. Kosovichev, Proc. Int. Astron. Union, IAUS 223, pp. 57–64

20. Brandenburg, A., Dintrans, B., & Haugen, N. E. L.: 2004, "Shearing and embedding box simulations of the magnetorotational instability," in *MHD Couette flows: experiments and models*, ed. R. Rosner, G. Rüdiger, & A. Bonanno, AIP Conf. Proc. **733**, pp. 122–136

19. Brandenburg, A., & Blackman, E. G.: 2003, "Helical surface structures," in *Modelling of Stellar Atmospheres*, ed. N. E. Piskunov, W. W. Weiss, & D. F. Gray, IAU Symp., Vol. **210**, pp. 233–242

18. Brandenburg, A., Haugen, N. E. L., & Dobler, W.: 2003, "MHD simulations of small and large scale dynamos," in *Turbulence, Waves, and Instabilities in the Solar Plasma*, ed. R. Erdélyi, K. Petrovay, B. Roberts, & M. Aschwanden, Kluwer Acad. Publ., Dordrecht, pp. 33–53

17. Brandenburg, A.: 2003, "The helicity issue in large scale dynamos," in *Simulations of magnetohydrodynamic turbulence in astrophysics*, ed. E. Falgarone, T. Passot, Lecture Notes in Physics, Vol. 614. Berlin: Springer, pp. 402–431

16. Brandenburg, A.: 2003, "Computational aspects of astrophysical MHD and turbulence," in *Advances in nonlinear dynamos (The Fluid Mechanics of Astrophysics and Geophysics, Vol.* **9***)*, ed. A. Ferriz-Mas & M. Núñez, Taylor & Francis, London and New York, pp. 269–344

15. Brandenburg, A.: 2001, "The inverse cascade in turbulent dynamos," in *Dynamo and dynamics, a mathematical challenge*, ed. P. Chossat, D. Armbruster, & O. Iuliana, Nato ASI Series **26**, Kluwer Publ., pp. 125–132

14. Brandenburg, A.: 2001, "The solar dynamo: old, recent, and new problems," in *Recent Insights into the Physics of the Sun and Heliosphere: Highlights from SOHO and Other Space Missions*, ed. P. Brekke, B. Fleck, & J. B. Gurman, Astron. Soc. Pac. Conf. Ser., Vol. **203**, pp. 144–151

13. Brandenburg, A.: 2001, "Magnetohydrodynamics of accretion discs," in *Encyclopedia of Astronomy and Astrophysics*, ed. P. Murdin, London: Nature Publishing Group, and Bristol: Institute of Physics Publishing, pp. 1543–1547 (`http://www.ency-astro.com`)

12. Brandenburg, A.& Saar, S. H.: 2000, "Dynamo mechanisms," in *Stellar clusters and associations: convection, rotation, and dynamos*, ed. R. Pallavicini, G. Micela & S. Sciortino, Astron. Soc. Pac. Conf. Ser., Vol. **198**, pp. 381–390

11. Brandenburg, A., Nordlund, Å., & Stein, R. F.: 2000, "Astrophysical convection and dynamos," in *Geophysical and Astrophysical Convection*, ed. P. A. Fox & R. M. Kerr, Gordon and Breach Science Publishers, pp. 85–105

10. Brandenburg, A.: 1999, "Helicity in large-scale dynamo simulations," in *Magnetic Helicity in Space and Laboratory Plasmas*, ed. M. R. Brown, R. C. Canfield, A. A. Pevtsov, Geophys. Monograph **111**, American Geophysical Union, Florida, pp. 65–73

9. Brandenburg, A.: 1998, "Disc Turbulence and Viscosity," in *Theory of Black Hole Accretion Discs*, ed. M. A. Abramowicz, G. Björnsson & J. E. Pringle, Cambridge University Press, pp. 61–86

8. Brandenburg, A.: 1998, "Theoretical Basis of Stellar Activity Cycles," in *Tenth Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun*, ed. R. Donahue & J. Bookbinder, Astron. Soc. Pac. Conf. Ser., Col. **154**, pp. 173–191

7. Brandenburg, A.: 1997, "Recent developments in the theory of large-scale dynamos," in *Past and present variability of the solar-terrestrial system: measurement, data analysis and theoretical models. Proceedings of the International School of Physics "Enrico Fermi" Course CXXXIII*, ed. G. Cini Castagnoli & A. Provenzale, IOS Press, Amsterdam, pp. 359–388

6. Brandenburg, A., & Campbell, C. G.: 1997, "Modelling magnetised accretion discs," in *Accretion disks – New aspects*, ed. H. Spruit & E. Meyer-Hofmeister, Springer-Verlag, pp. 109–124

5. Brandenburg, A., Nordlund, Å., Stein, R. F., Torkelsson, U.: 1996, "Dynamo generated turbulence in disks: value and variability of alpha," in *Physics of Accretion Disks*, ed. S. Kato, S. Inagaki, S. Mineshige & J. Fukue, Gordon and Breach Science Publishers, pp. 285–290

4. Brandenburg, A.: 1994, "Hydromagnetic simulations of the solar dynamo," in *Advances in Solar Physics*, ed. G. Belvedere, W. Mattig & M. Rodonó, Lecture Notes in Physics **432**, Springer-Verlag, pp. 73–84

3. Brandenburg, A.: 1994, "Solar Dynamos: Computational Background," in *Lectures on Solar and Planetary Dynamos*, ed. M. R. E. Proctor & A. D. Gilbert, Cambridge University Press, pp. 117–159

2. Brandenburg, A.: 1993, "Simulating the solar dynamo," in *The Cosmic Dynamo*, ed. F. Krause, K.-H. Rädler, & G. Rüdiger, Kluwer Acad. Publ., Dordrecht, pp. 111–121

1. Brandenburg, A., Tuominen, I.: 1991, "The solar dynamo," in *The Sun and cool stars: activity, magnetism, dynamos, IAU Coll. 130*, ed. I. Tuominen, D. Moss & G. Rüdiger, Lecture Notes in Physics **380**, Springer-Verlag, pp. 223–233

C. Conference proceedings

86. Kahniashvili, T., Brandenburg, A., Kosowsky, A., Mandal, S., & Roper Pol, A.: 2020, "Magnetism in the early universe," in *Astronomy in Focus, Vol. 14*, ed. M. T. Lago, ed., Proc. IAU Symp. A30, pp. 295–298

85. Warnecke, & Brandenburg, A.: 2014, "Coronal influence on dynamos," in *Magnetic fields throughout stellar evolution*, ed. M. Jardine, Proc. IAU Symp., Vol. **302**, pp. 134–137

84. Candelaresi, S., & Brandenburg, A.: 2013, "Topological constraints on magnetic field relaxation," in *Solar and astrophysical dynamos and magnetic activity*, ed. A. Kosovichev, Proc. IAU Symp., Vol. **294**, pp. 353–357

83. Käpylä, P. J., Brandenburg, A., Kleeorin, N., Mantere, M. J., & Rogachevskii, I.: 2013, "Flux concentrations in turbulent convection," in *Solar and astrophysical dynamos and magnetic activity*, ed. A. Kosovichev, Proc. IAU Symp., Vol. **294**, pp. 283–288

82. Warnecke, J., Käpylä, P. J., Mantere, M. J., & Brandenburg, A.: 2013, "Solar-like differential rotation and equatorward migration in a convective dynamo with a coronal envelope," in *Solar and astrophysical dynamos and magnetic activity*, ed. A. Kosovichev, Proc. IAU Symp., Vol. **294**, pp. 307–312

81. Candelaresi, S., & Brandenburg, A.: 2012, "Magnetic helicity fluxes and their effect on stellar dynamos," in *Comparative Magnetic Minima: Characterizing quiet times in the Sun and stars*, ed. C. H. Mandrini & D. F. Webb, Proc. IAU Symp., Vol. **286**, pp. 49–53

80. Warnecke, J., Käpylä, P. J., Mantere, M. J., & Brandenburg, A.: 2012, "Coronal ejections from convective spherical shell dynamos," in *Comparative Magnetic Minima: Characterizing quiet times in the Sun and stars*, ed. C. H. Mandrini & D. F. Webb, Proc. IAU Symp., Vol. **286**, pp. 154–158

79. Del Sordo, F., Bonanno, A., Brandenburg, A., & Mitra, D.: 2012, "Spontaneous chiral symmetry breaking in the Tayler instability," in *Comparative Magnetic Minima: Characterizing quiet times in the Sun and stars*, ed. C. H. Mandrini & D. F. Webb, Proc. IAU Symp., Vol. **286**, pp. 65–69

78. Del Sordo, F., & Brandenburg, A.: 2011, "How can vorticity be produced in irrotationally forced flows?" in *Advances in Plasma Astrophysics*, ed. A. Bonanno, E. de Gouveia dal Pino, & A. Kosovichev, Proc. IAU Symp., Vol. **274**, pp. 373–375

77. Kemel, K., Brandenburg, A., Kleeorin, N., & Rogachevskii, I.: 2011, "Turbulent magnetic pressure instability in stratified turbulence," in *Advances in Plasma Astrophysics*, ed. A. Bonanno, E. de Gouveia dal Pino, & A. Kosovichev, Proc. IAU Symp., Vol. **274**, pp. 473–475

76. Candelaresi, S., & Brandenburg, A.: 2011, "Magnetic helicity fluxes in alpha–Omega dynamos," in *Advances in Plasma Astrophysics*, ed. A. Bonanno, E. de Gouveia dal Pino, & A. Kosovichev, Proc. IAU Symp., Vol. **274**, pp. 464–466

75. Warnecke, J., Brandenburg, A., & Mitra, D.: 2011, "Plasmoid ejections driven by dynamo action underneath a spherical surface," in *Advances in Plasma Astrophysics*, ed. A. Bonanno, E. de Gouveia dal Pino, & A. Kosovichev, Proc. IAU Symp., Vol. **274**, pp. 306–309

74. Candelaresi, S., Del Sordo, F., & Brandenburg, A.: 2011, "Decay of trefoil and other magnetic knots," in *Advances in Plasma Astrophysics*, ed. A. Bonanno, E. de Gouveia dal Pino, & A. Kosovichev, Proc. IAU Symp., Vol. **274**, pp. 461–463

73. Cantiello, M., Braithwaite, J., Brandenburg, A., Del Sordo, F., Käpylä, P., & Langer, N.: 2011, "Turbulence and magnetic spots at the surface of hot massive stars," in *Physics of Sun and Star Spots*, ed. D. P. Choudhary & K. G. Strassmeier, Proc. IAU Symp., Vol. **273**, pp. 200–203

72. Kemel, K., Brandenburg, A., Kleeorin, N., & Rogachevskii, I.: 2011, "The negative magnetic pressure effect in stratified turbulence," in *Physics of Sun and Star Spots*, ed. D. P. Choudhary & K. G. Strassmeier, Proc. IAU Symp., Vol. **273**, pp. 83–88

71. Warnecke, J., & Brandenburg, A.: 2011, "Dynamo generated field emergence through recurrent plasmoid ejections," in *Physics of Sun and Star Spots*, ed. D. P. Choudhary & K. G. Strassmeier, Proc. IAU Symp., Vol. **273**, pp. 256–260

70. Cantiello, M., Braithwaite, J., Brandenburg, A., Del Sordo, F., Käpylä, P., & Langer, N.: 2011, "3D MHD simulations of subsurface convection in OB stars," in *Active OB stars: structure, evolution, mass loss and critical limits*, ed. C. Neiner, G. Wade, G. Meynet, & G. Peters, Proc. IAU Symp., Vol. **272**, pp. 32–37

69. Del Sordo, F., & Brandenburg, A.: 2011, "Vorticity from irrotationally forced flow," in *Astrophysical Dynamics: from Stars to Galaxies*, ed. N. Brummell, A. S. Brun, M. S. Miesch, & Y. Ponty, Proc. IAU Symp., Vol. **271**, pp. 375–376

68. Candelaresi, S., Del Sordo, F., & Brandenburg, A.: 2011, "Influence of Magnetic Helicity in MHD," in *Astrophysical Dynamics: from Stars to Galaxies*, ed. N. Brummell, A. S. Brun, M. S. Miesch, & Y. Ponty, Proc. IAU Symp., Vol. **271**, pp. 369–370

67. Warnecke, J., & Brandenburg, A.: 2011, "Recurrent flux emergence from dynamo-generated fields," in *Astrophysical Dynamics: from Stars to Galaxies*, ed. N. Brummell, A. S. Brun, M. S. Miesch, & Y. Ponty, Proc. IAU Symp., Vol. **271**, pp. 407–408

66. Mitra, D., Tavakol, R., Brandenburg, A., & Käpylä, P. J.: 2010, "Oscillatory migratory large-scale fields in mean-field and direct simulations," in *Solar and Stellar Variability: Impact on Earth and Planets, Vol.* **264**, ed. A. Kosovichev et al., CUP, pp. 197–201

65. Brandenburg, A., & Del Sordo, F.: 2010, "Turbulent diffusion and galactic magnetism," in *Magnetic Fields in Diffuse Media*, ed. E. de Gouveia Dal Pino, Highlights of Astronomy, Vol. **15**, CUP, pp. 432–433

64. Gustafsson, M., Brandenburg, A., Lemaire, J. L., & Field, D.: 2007, "Probing turbulence in OMC1 at the star forming scale: observations and simulations," in *Triggered Star Formation in a Turbulent ISM*, ed. B. G. Elmegreen & J. Palous, Proc. IAU Symp., Vol. **237**, pp. 183–187

63. Brandenburg, A.: 2006, "Why coronal mass ejections are necessary for the dynamo, JD-8," in *Highlights of Astronomy, Vol.* **14**, ed. K. G. Strassmeier & A. Kosovichev, CUP, in press

62. Brandenburg, A., & Käpylä, P. J.: 2006, "Connection between active longitudes and magnetic helicity," in *Solar activity: exploration, understanding and prediction*, ed. H. Lundstedt, ESA, ESTEC Noordwijk, The Netherlands, in press (astro-ph/0512639)

61. Brandenburg, A.: 2006, "Distributed versus tachocline dynamos," in *Solar activity: exploration, understanding and prediction*, ed. H. Lundstedt, ESA, ESTEC Noordwijk, The Netherlands, in press (astro-ph/0512638)

60. Brandenburg, A.: 2006, "Location of the solar dynamo and near-surface shear," in *Solar MHD: Theory and Observations – a High Spatial Resolution Perspective*, ed. J. W. Leibacher, H. Uitenbroek, & R. F. Stein, Astron. Soc. Pac. Conf. Ser., Vol. **354**, pp. 121–126

59. Brandenburg, A., Käpylä, P., & Mohammed, A.: 2005, "Passive scalar diffusion as a damped wave," in *Progress in Turbulence*, ed. J. Peinke, A. Kittel, S. Barth, & M. Oberlack, Springer-Verlag, pp. 3–6

58. von Rekowski, B., & Brandenburg, A.: 2004, "Structured, dynamo driven stellar and disc winds," in *Asymmetrical Planetary Nebulae III: Winds, Structure and the Thunderbird*, ed. M. Meixner, J. H. Kastner, B. Balick & N. Soker, Astron. Soc. Pac. Conf. Ser., Vol. **313**, pp. 476–479

57. Hindmarsh, M., Christensson, M., & Brandenburg, A.: 2003, "Decay of magnetic fields in the early universe," in *Strong and Electroweak Matter*, ed. M. G. Schmidt, World Scientific, Singapore, in press

56. Hindmarsh, M., Christensson, M., & Brandenburg, A.: 2003, "MHD inverse cascade in the early Universe," in *COSMO-01*, ed. , , in press

55. Dintrans, B., Brandenburg, A., Nordlund, Å., & Stein, R. F.: 2003, "On the generation of internal gravity waves by penetrative convection," in *SF2A-2003: Semaine de l'Astrophysique Française*, ed. F. Combes, D. Barret, & T. Contini, EdP-Sciences, Conference Series, pp. 511–514

54. Dintrans, B., & Brandenburg, A.: 2003, "The analytic subspace to measure internal gravity waves in hydrosimulations," in *SF2A-2003: Semaine de l'Astrophysique Française*, ed. F. Combes, D. Barret, & T. Contini, EdP-Sciences, Conference Series, pp. 243–244

53. Dintrans, B., Brandenburg, A., Nordlund, Å., & Stein, R. F.: 2003, "Stochastic excitation of internal gravity waves by overshooting convection," in *SF2A-2003: Semaine de l'Astrophysique Française*, ed. F. Combes, D. Barret, & T. Contini, EdP-Sciences, Conference Series, pp. 216–219

52. Brandenburg, A., & Blackman, E. G.: 2002, "Magnetic helicity and the solar dynamo," in *Solar variability: from core to outer frontiers*, ed. A. Wilson, ESA SP-506, Volume 2, ESTEC Noordwijk, The Netherlands, pp. 805–810

51. Brandenburg, A.: 2002, "Numerical simulations of turbulent dynamos," in *Highlights of Astronomy*, ed. D. Moss, R. Beck, & A. Shukurov, Astron. Soc. Pac. Conf. Ser., Vol. **12**, pp. 742–744

50. Saar, S. H., & Brandenburg, A.: 2001, "Further analysis of stellar magnetic cycle periods," in *Magnetic Fields across the Hertzsprung-Russell Diagram*, ed. G. Mathys, S.K. Solanki, & D.T. Wickramasinghe, Astron. Soc. Pac. Conf. Ser., Vol. **248**, pp. 231–234

49. Torkelsson, U., Ogilvie, G. I., Brandenburg, A., Pringle, J. E., Nordlund, Å., & Stein, R. F.: 2001, "Magnetohydrodynamic turbulence in warped accretion discs," in *20th Texas Symposium on Relativistic Astrophysics*, ed. J. C. Wheeler & H. Martel, American Institute of Physics (AIP) Press, pp. 681–686

48. Brandenburg, A., & Kerr, R. M.: 2001, "Helicity in hydro and MHD reconnection," in *Quantized Vortex Dynamics and Superfluid Turbulence*, ed. C. F. Barenghi, R. J. Donnelly, & W. F. Vinen, Lecture Notes in Physics, Vol. **571**, Springer Verlag, pp. 358–365

47. Bigazzi, A., Brandenburg, A., & Subramanian, K.: 2001, "Sheared helical turbulence and the helicity constraint in large-scale dynamos," in *Dynamo and dynamics, a mathematical challenge*, ed. P. Chossat, D. Armbruster, & O. Iuliana, Nato ASI Series **26**, Kluwer Publ., pp. 117–124

46. von Rekowski, B., Dobler, W., Shukurov, A., & Brandenburg, A.: 2001, "Two-dimensional disk dynamos with vertical outflows into a halo," in *Dynamo and dynamics, a mathematical challenge*, ed. P. Chossat, D. Armbruster, & O. Iuliana, Nato ASI Series **26**, Kluwer Publ., pp. 305–312

45. Kerr, R. M., & Brandenburg, A.: 2000, "New tests for a singularity of ideal MHD," unpublished

44. Brandenburg, A.: 2000, "The dynamo effect in stars," in *Pacific Rim Conference*, ed. K. S. Cheng, H. F. Chau, K. L. Chan, & K. C. Leung, Kluwer Acad. Publ., Dordrecht, pp. 1–8

43. Torkelsson, U., Brandenburg, A., Nordlund, Å., & Stein, R. F.: 2000, "Magnetohydrodynamic turbulence in accretion discs," in *Highly Energetic Physical Processes and Mechanisms for Emission from Astrohysical Plasmas*, ed. P. C. H. Martens & S. Tsuruta, Astron. Soc. Pac. Conf. Ser., Vol. **195**, pp. 241–242

42. Dobler, W., Brandenburg, A., & Shukurov, A.: 1999, "Pressure-driven outflow and magneto-centrifugal wind from a dynamo active disc," in *Plasma Turbulence and Energetic Particles in Astrophysics*, ed. M. Ostrowski & R. Schlickeiser, Publ. Astron. Obs. Jagiellonian Univ., Cracow, pp. 347–352

41. Stein, R. F., Georgobiani, D., Bercik, D. J., Brandenburg, A., Nordlund, Å.: 1999, "Magneto-convection," in *Stellar Structure: Theory and Tests of Convective Energy Transport*, ed. A. Gimenez, E. F. Guinan & B. Montesinos, Astron. Soc. Pac. Conf. Ser., Vol. **173**, pp. 193–193

40. Brandenburg, A.: 1999, "Simulations and observations of stellar dynamos: evidence for a magnetic alpha-effect," in *Stellar dynamos: nonlinearity and chaotic flows*, ed. M. Núñez & A. Ferriz-Mas, Astron. Soc. Pac. Conf. Ser., Vol. **178**, pp. 13–21

39. Korpi, M. J., Brandenburg, A., Shukurov, A. & Tuominen, I.: 1999, "A local three-dimensional model of the supernova regulated ISM," in *A. R. Taylor, T. L. Landecker, & G. Joncas*, ed. New Perspectives on the Interstellar Medium, Astron. Soc. Pac. Conf. Ser., Vol. **168**, pp. 445–448

38. Torkelsson, U., Ogilvie, G. I., Brandenburg, A., Pringle, J. E., Nordlund, Å., & Stein, R. F.: 1999, "The dynamics of turbulent viscosity," in *High Energy Processes in Accreting Black Holes*, ed. J. Poutanen & R. Svensson, Astron. Soc. Pac. Conf. Ser., Vol. **161**, pp. 422–427

37. Korpi, M. J., Brandenburg, A., Shukurov, A. & Tuominen, I.: 1999, "Vortical motions driven by supernova explosions," in *J. Franco & A. Carramiñana*, ed. Interstellar Turbulence, Cambridge University Press, pp. 127–131

36. Torkelsson, U., Ogilvie, G. I., Brandenburg, A., Nordlund, Å., Stein, R. F.: 1998, "Exploring magnetohydrodynamic turbulence on the computer," in *Accretion processes in astrophysical systems: Some like it hot*, ed. S. S. Holt & T. R. Kallman, American Institute of Physics Conf. Proc., pp. 69–72

35. Torkelsson, U., Brandenburg, A., Nordlund, Å., Stein, R. F.: 1997, "Magnetohydrodynamic turbulence in accretion discs: towards more realistic models," in *Accretion phenomena and related outflows, IAU Coll. 163*, ed. D. T. Wickramasinghe, G. V. Bicknell & L. Ferrario, Astron. Soc. Pac. Conf. Ser., Col. **121**, pp. 210–214

34. Torkelsson, U., Ogilvie, G. I., Brandenburg, A., Nordlund, Å., Stein, R. F.: 1997, "The nonlinear evolution of a single mode of the magnetic shearing instability," in *Accretion disks - New aspects*, ed. H. Spruit, & E. Meyer-Hofmeister, Springer-Verlag, pp. 134–153

33. Miesch, M., Brandenburg, A., Zweibel, E., & Toomre, J.: 1995, "Non-local transport in turbulent MHD convection," in *Proceedings of Fourth SOHO Workshop: Helioseismology*, ed. ESA SP-376, Volume 2, Pacific Grove, California, pp. 253–260

32. Brandenburg, A., Nordlund, Å., Stein, R. F., Torkelsson, U.: 1995, "Dynamo generated turbulence is discs," in *Small-scale structures in three-dimensional hydro and magnetohydrodynamic turbulence*, ed. M. Meneguzzi, A. Pouquet, & P. L. Sulem, Lecture Notes in Physics **462**, Springer-Verlag, pp. 385–390

31. Brandenburg, A.: 1994, "Generation of field-aligned current tubes in magnetospheric shear layers," in *Second International Conference on Substorms*, ed. J. R. Kan, J. D. Craven & S.-I. Akasofu, Geophysical Institute, pp. 409–411

30. Keppens, R., Charbonneau, P., MacGregor, K. B., Brandenburg, A.: 1994, "Angular momentum loss from the young sun: improved wind and dynamo models," in *Eighth Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun*, ed. J.-P. Caillault, Astron. Soc. Pac. Conf. Ser., Vol. **64**, pp. 193–195

29. Saar, S. H., Brandenburg, A., Donahue, R. A., & Baliunas, S. L.: 1994, "The evolution of stellar dynamo variations," in *Eighth Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun*, ed. J.-P. Caillault, Astron. Soc. Pac. Conf. Ser., Vol. **64**, pp. 468–470

28. Brandenburg, A., Charbonneau, P., Kitchatinov, L. L., & Rüdiger, G.: 1994, "Stellar Dynamos: The Rossby number dependence," in *Eighth Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun*, ed. J.-P. Caillault, Astron. Soc. Pac. Conf. Ser., Vol. **64**, pp. 354–356

27. Brandenburg, A., Saar, S. H., Moss, D., Tuominen, I.: 1994, "Stellar dynamo models: from F to K," in *Eighth Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun*, ed. J.-P. Caillault, Astron. Soc. Pac. Conf. Ser., Vol. **64**, pp. 357–359

26. Kurths, J., Feudel, U., Brandenburg, A.: 1994, "Complexity in inhomogeneous chaotic systems," in *The Paradigm of Self-Organization II* Ed. G. J. Dalenoort, Gordon & Breach, Ser. Studies in Cybernetics 24, 1994, p. 157–170.

25. Brandenburg, A., Procaccia, I., Segel, D., Vincent, A., Manzini, M.: 1993, "Multifractality, near-singularities and the role of stretching in turbulence," in *Solar and Planetary Dynamos*, ed. M. R. E. Proctor, P. C. Matthews & A. M. Rucklidge, Cambridge University Press, pp. 35–42

24. Moss, D., Brandenburg, A.: 1993, "The excitation of nonaxisymmetric magnetic fields in galaxies," in *Solar and Planetary Dynamos*, ed. M. R. E. Proctor, P. C. Matthews & A. M. Rucklidge, Cambridge University Press, pp. 219–224

23. Pulkkinen, P., Tuominen, I., Brandenburg, A., Nordlund, Å. & Stein, R.F.: 1993, "Reynolds stresses derived from simulations," in *The Cosmic Dynamo*, ed. F. Krause, K.-H. Rädler, & G. Rüdiger, Kluwer Acad. Publ., Dordrecht, pp. 123–127

22. Kurths, J., Brandenburg, A., Feudel, U., Jansen, W.: 1993, "Chaos in nonlinear dynamo models," in *The Cosmic Dynamo*, ed. F. Krause, K.-H. Rädler, & G. Rüdiger, Kluwer Acad. Publ., Dordrecht, pp. 83–89

21. Donner, K. J., Brandenburg, A., Thomasson, M.: 1993, "Galactic dynamos and dynamics," in *The Cosmic Dynamo*, ed. F. Krause, K.-H. Rädler, & G. Rüdiger, Kluwer Acad. Publ., Dordrecht, pp. 333–337

20. Moss, D., Brandenburg, A., Donner, K. J., Thomasson, M.: 1993, "Towards the magnetic field of M81," in *The Cosmic Dynamo*, ed. F. Krause, K.-H. Rädler, & G. Rüdiger, Kluwer Acad. Publ., Dordrecht, pp. 339–343

19. Brandenburg, A., Moss, D., Tuominen, I.: 1992, "Turbulent pumping in the solar dynamo," in *The Solar Cycle*, ed. K. L. Harvey, ASP Conf. Series, Vol. **27**, pp. 536–542

18. Stein, R.F., Brandenburg, A., Nordlund, Å.: 1992, "Magneto-Convection," in *Cool Stars, Stellar Systems, and the Sun*, ed. M. S. Giampapa & J. A. Bookbinder, ASP Conf. Series, Vol. **26**, pp. 148–157

17. Brandenburg, A., Jennings, R. L., Nordlund, Å., Stein, R.F.: 1991, "Magnetic flux tubes as coherent structures," in *Spontaneous formation of space-time structures and criticality*, ed. T. Riste & D. Sherrington, Nato ASI Series, pp. 371–374

16. Brandenburg, A., Moss, D., Rieutord, M., Rüdiger, G., Tuominen, I.: 1991, "alpha–Lambda dynamos," in *The Sun and cool stars: activity, magnetism, dynamos, IAU Coll. 130*, ed. I. Tuominen, D. Moss & G. Rüdiger, Lecture Notes in Physics **380**, Springer-Verlag, pp. 147–150

15. Pulkkinen, P., Tuominen, I., Brandenburg, A., Nordlund, Å., Stein, R.F.: 1991, "Simulation of rotational effects on turbulence in the solar convective zone," in *The Sun and cool stars: activity, magnetism, dynamos*, ed. I. Tuominen, D. Moss & G. Rüdiger, Lecture Notes in Physics **380**, Springer-Verlag, pp. 98–100

14. Jennings, R. L., Brandenburg, A., Nordlund, Å., Stein, R.F., Tuominen, I.: 1991, "Magnetic tubes in overshooting compressible convection," in *The Sun and cool stars: activity, magnetism, dynamos*, IAU Coll. 130, eds. I. Tuominen, D. Moss & G. Rüdiger, Lecture Notes in Physics, Springer-Verlag, pp. 92-94

13. Brandenburg, A., Jennings, R. L., Nordlund, Å., Stein, R. F., Tuominen, I.: 1991, "The role of overshoot in solar activity: A direct simulation of the dynamo," in *The Sun and cool stars: activity, magnetism, dynamos*, ed. I. Tuominen, D. Moss & G. Rüdiger, Lecture Notes in Physics **380**, Springer-Verlag, pp. 86–88

12. Tuominen, I., Piskunov, N. E., Moss, D., Brandenburg, A.: 1990, "Surface imaging of giant stars and nonlinear dynamos," in *Sixth Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun*, ed. G. Wallerstein, ASP Conf. Series, Vol. **9**, pp. 73–75

11. Donner, K. J., Brandenburg, A.: 1990, "Effect of a conducting halo on the structure of galactic magnetic fields," in *Proc. Nordic-Baltic Astronomy Meeting*, ed. C.-I. Lagerkvist, D. Kiselman & M. Lindgren, Uppsala Univ. (Sweden), Astronomiska Observatoriet, pp. 85–88

10. Tuominen, I., Rüdiger, G., Brandenburg, A.: 1990, "Torsional oscillations and the solar dynamo regime," in *Solar Photosphere: Structure, Convection and Magnetic Fields*, ed. J. O. Stenflo, Kluwer Acad. Publ., Dordrecht, pp. 387–390

9. Brandenburg, A., Meinel, R., Moss, D., Tuominen, I.: 1990, "Variation of even and odd parity in solar dynamo models," in *Solar Photosphere: Structure, Convection and Magnetic Fields*, ed. J. O. Stenflo, Kluwer Acad. Publ., Dordrecht, pp. 379–382

8. Brandenburg, A., Nordlund, Å., Pulkkinen, P., Stein, R.F., Tuominen, I.: 1990, "Turbulent diffusivities derived from simulations," in *Proceedings of the Finnish Astronomical Society 1990*, eds. K. Muinonen, M. Kokko, S. Pohjolainen, and P. Hakala, Helsinki 1990, p. 1-4

7. Donner, K.J., Brandenburg, A.: 1990, "Non-axisymmetric magnetic fields in turbulent gas discs," in *Dynamics of Astrophysical Discs*, ed. J. A. Sellwood, Cambridge University Press, p. 151-152

6. Brandenburg, A., Tuominen, I.: 1989, "Solar magnetic fields and dynamo process," in: *Solar and Stellar Flares*, eds. B. M. Haisch, & M. Rodonò, Publ. Astrophys. Obs. Catania, p. 369-372

5. Brandenburg, A., Pulkkinen, P., Tuominen, I., Nordlund, Å, Stein, R. F.: 1989, "Simulation of MHD convection as a test for mean field theories," in *Turbulence and Nonlinear Dynamics in MHD Flows*, eds. M. Meneguzzi, A. Pouquet, & P. L. Sulem, Elsevier Science Publ. B.V. (North-Holland), p. 125-130

4. Brandenburg, A., Krause, F., Tuominen, I.: 1989, "Parity selection in nonlinear dynamos," in *Turbulence and Nonlinear Dynamics in MHD Flows*, ed. M. Meneguzzi, A. Pouquet & P. L. Sulem, Elsevier Science Publ. B.V., North-Holland, pp. 35–40

3. Tuominen, I., Rüdiger, G., Brandenburg, A.: 1988, "Observational constraints for solar type dynamos," in *Activity in Cool Star Envelopes*, ed. O. Havnes *et al.*, Kluwer Acad. Publ., pp. 13–20

2. Brandenburg, A.: 1988, "Solar oscillations in the two year range," in *Proceedings of the Sixth Soviet-Finnish Astronomical Meeting*, eds. U. Hänni, & I. Tuominen, p. 34-39

1. Brandenburg, A.: 1988, "Gravity wave generation by large scale bubbles," in *Advances in Helio- and Asteroseismology*, eds. J. Christensen-Dalsgaard and S. Frandsen, Reidel Dordrecht, p. 383-386

D. Public datasets, Zenodo publications, etc.

55. Brandenburg, A., & Vishniac, E. T.: 2025, *Datasets for "Magnetic helicity fluxes in dynamos from rotating inhomogeneous turbulence"*. (`http://norlx65.nordita.org/~brandenb/projects/Omega-Gradu/`)

54. Vachaspati, T., & Brandenburg, A.: 2025, *Datasets for "Spectra of magnetic fields from electroweak symmetry breaking" v2025.01.03*. Zenodo, DOI:10.5281/zenodo.14796972

53. Dehman, C., & Brandenburg, A.: 2024, *Datasets for "Reality of Inverse Cascading in Neutron Star Crusts" v2024.12.18*. Zenodo, DOI:10.5281/zenodo.14513354

52. Brandenburg, A., Iarygina, O., Sfakianakis, E. I., & Sharma, R.: 2024, *Datasets for "Magnetogenesis from axion-SU(2) inflation" v2024.12.13*. Zenodo, DOI:10.5281/zenodo.14434086

51. Sharma, R., Brandenburg, A., Subramanian, K., & Vikman, A.: 2024, *Datasets for "Lattice simulations of axion-U(1) inflation: gravitational waves, magnetic fields, and black holes" v2024.06.18*. Zenodo, DOI:10.5281/zenodo.10527437

50. Brandenburg, A., & Banerjee, A.: 2024, *Datasets for "Turbulent magnetic decay controlled by two conserved quantities" v2024.11.02*. Zenodo, DOI:10.5281/zenodo.14028931

49. Brandenburg, A., Neronov, A., & Vazza, F.: 2024, *Datasets for "Resistively controlled primordial magnetic turbulence decay" v2024.01.18*. Zenodo, DOI:10.5281/zenodo.10527437

48. Sharma, R., Dahl, J., Brandenburg, A., & Hindmarsh, M.: 2023, *Datasets for "Shallow relic gravitational wave spectrum with acoustic peak" v2023.11.10*. Zenodo, DOI:10.5281/zenodo.10101985

47. Iarygina, O., Sfakianakis, E. I., Sharma, R.. & Brandenburg, A.: 2023, *Datasets for "Backreaction of axion-SU(2) dynamics during inflation" v2023.11.05*. Zenodo, DOI:10.5281/zenodo.10072163

46. Brandenburg, A., & Protiti, N. N.: 2023, *Datasets for "Electromagnetic conversion into kinetic and thermal energies" v2023.08.01*. Zenodo, DOI:10.5281/zenodo.8203242

45. Brandenburg, A., Clarke, E., Kahniashvili, T., Long, A. J., & Sun, G.: 2023, *Datasets for "Relic gravitational waves from the chiral plasma instability in the standard cosmological model" v2023.07.17.* Zenodo, DOI:10.5281/zenodo.8157463

44. Brandenburg, A., Sharma, R., & Vachaspati, T.: 2023, *Datasets for "Inverse cascading for initial MHD turbulence spectra between Saffman and Batchelor" v2023.07.09.* Zenodo, DOI:10.5281/zenodo.8128611

43. Brandenburg, A., Kamada, K., Mukaida, K., Schmitz, K., & Schober, J.: 2023, *Datasets for "Chiral magnetohydrodynamics with zero total chirality" v2023.08.20.* Zenodo, DOI:10.5281/zenodo.8267336

42. Sarin, N., Brandenburg, A., & Haskell, B.: 2023, *Supplemental Material to "Confronting the neutron star population with inverse cascades" v2023.06.27.* Zenodo, DOI:10.5281/zenodo.8088084

41. Mizerski, K. A., Yokoi, N., & Brandenburg, A.: 2023, *Datasets for "Cross-helicity effect on α-type dynamo in non-equilibrium turbulence" v2023.02.28.* Zenodo, DOI:10.5281/zenodo.7683615

40. Brandenburg, A., Kamada, K., & Schober, J.: 2023, *Datasets for "Decay law of magnetic turbulence with helicity balanced by chiral fermions" v2023.02.01.* Zenodo, DOI:10.5281/zenodo.7499431

39. Brandenburg, A.: 2023, *Datasets for "Quadratic growth during the COVID-19 pandemic: merging hotspots and reinfections" v2023.01.02.* Zenodo, DOI:10.5281/zenodo.7499431

38. Brandenburg, A.: 2022, *Datasets for "Hosking integral in nonhelical Hall cascade" v2022.11.24.* Zenodo, DOI:10.5281/zenodo.7357799

37. He, Y., Roper Pol, A., & Brandenburg, A.: 2022, *Datasets of "Modified propagation of gravitational waves from the early radiation era" v2022.11.16.* Zenodo, DOI:10.5281/zenodo.7327770

36. Brandenburg, A., Rogachevskii, I., & Schober, J.: 2022, *Datasets for "Dissipative magnetic structures and scales in small-scale dynamos" v2022.9.18.* Zenodo, DOI:10.5281/zenodo.7090887

35. Carenza, P., Sharma, R., Marsh, M. C. D., Brandenburg, A., Müller, E.: 2022, *Datasets for "Magnetohydrodynamics predicts heavy-tailed distributions of axion-photon conversion" v2022.8.8.* Zenodo, DOI:10.5281/zenodo.8342138

34. Brandenburg, A., Zhou, H., & Sharma, R.: 2022, *Datasets for "Batchelor, Saffman, and Kazantsev spectra in galactic small-scale dynamos" v2022.07.19.* Zenodo, DOI:10.5281/zenodo.7281479

33. Zhou, H., Sharma, R., & Brandenburg, A.: 2022, *Datasets for "Scaling of the Hosking integral in decaying magnetically-dominated turbulence" v2022.06.14.* Zenodo, DOI:10.5281/zenodo.7112885

32. Sharma, R., & Brandenburg, A.: 2022, *Supplemental Material and Datasets for "Low frequency tail of gravitational wave spectra from hydromagnetic turbulence" v2022.08.22.* Zenodo, DOI:10.5281/zenodo.7014823

31. Käpylä, M. J., Rheinhardt, M., & Brandenburg, A.: 2022, *Datasets for "Fully compressible test-field method and its application to shear dynamos" v2022.03.24.* Zenodo, DOI:10.5281/zenodo.6383190

30. Brandenburg, A., & Ntormousi, E.: 2021, *Datasets for "Dynamo effect in unstirred self-gravitating turbulence" v2021.12.06.* Zenodo, DOI:10.5281/zenodo.5760126

29. Kahniashvili, T., Clarke, E., Stepp, J., & Brandenburg, A.: 2021, *Datasets for "Big bang nucleosynthesis limits and relic gravitational waves detection prospects" v2021.11.18.* Zenodo, DOI:10.5281/zenodo.5709176

28. Roper Pol, A., Mandal, S., Brandenburg, A., & Kahniashvili, T.: 2021, *Datasets for "Polarization of gravitational waves from helical MHD turbulent sources" v2021.09.24.* Zenodo, DOI:10.5281/zenodo.5525504

27. He, Y., Roper Pol, A., & Brandenburg, A.: 2021, *Datasets for "Leading-order nonlinear gravitational waves from reheating magnetogeneses" v2021.09.23.* Zenodo, DOI:10.5281/zenodo.5524454

26. Brandenburg, A., He, Y., & Sharma, R.: 2021, *Datasets for "Simulations of helical inflationary magnetogenesis and gravitational waves" v2021.07.26.* Zenodo, DOI:10.5281/zenodo.5137202

25. Brandenburg, A., & Sharma, R.: 2021, *Datasets for "Simulating relic gravitational waves from inflationary magnetogenesis" v2021.06.04.* Zenodo, DOI:10.5281/zenodo.4900075

24. Li, X.-Y., Mehlig, B., Svensson, G., Brandenburg, A., & Haugen, N. E. L.: 2021, *Datasets for "Collision fluctuations of lucky droplets with superdroplets" v2021.05.07.* Zenodo, DOI:10.5281/zenodo.4742786

23. Haugen, N. E. L., Brandenburg, A., Sandin, C., & Mattsson, L.: 2021, *Datasets for "Spectral characterisation of inertial particle clustering in turbulence" v2021.05.02.* Zenodo, DOI:10.5281/zenodo.4733175

22. He, Y., Brandenburg, A., & Sinha, A.: 2021, *Datasets for "Spectrum of turbulence-sourced gravitational waves as a constraint on graviton mass" v2021.04.06.* Zenodo, DOI:10.5281/zenodo.4666074

21. Brandenburg, A., Clarke, E., He, Y., & Kahniashvili, T.: 2021, *Datasets for "Can we observe the QCD phase transition-generated gravitational waves through pulsar timing arrays?" v2021.02.24.* Zenodo, DOI:10.5281/zenodo.4560423

20. Brandenburg, A., He, Y., Kahniashvili, T., Rheinhardt, M., & Schober, J.: 2021, *Datasets for "Gravitational waves from the chiral magnetic effect," v2021.01.18.* Zenodo, DOI:10.5281/zenodo.4448211

19. Haugen, N. E. L., & Brandenburg, A.: 2020, *Datasets for "Hydrodynamic and hydromagnetic energy spectra from large eddy simulations," v2020.12.08.* DOI:10.5281/zenodo.4311391

18. Jakab, P., & Brandenburg, A.: 2020, *Datasets for "The effect of a dynamo-generated field on the Parker wind," v2020.11.22.* DOI:10.5281/zenodo.4284439

17. Kahniashvili, T., Brandenburg, A., Gogoberidze, G., Mandal, S., & Roper Pol, A.: 2020, *Datasets for "Circular polarization of gravitational waves from early-universe helical turbulence," v2020.11.07.* DOI:10.5281/zenodo.4256906

16. Brandenburg, A., & Das, U.: 2020, *Datasets for "Turbulent radiative diffusion and turbulent Newtonian cooling," v2020.10.13b.* DOI:10.5281/zenodo.4086046

15. Merski, M.: 2020, *Datasets for "A simple model to predict future SARS-CoV-2 infections on a national level," v2020.10.11.* DOI:10.5281/zenodo.4256906

14. Brandenburg, A.: 2020, *Datasets for "Piecewise quadratic growth during the 2019 novel coronavirus epidemic," v2020.09.07.* DOI:10.5281/zenodo.4016941

13. Brandenburg, A.: 2020, *Datasets for "Hall cascade with fractional magnetic helicity in neutron star crusts," v2020.07.20.* DOI:10.5281/zenodo.3951873

12. Brandenburg, A., & Furuya, R. S.: 2020, *Datasets for "Application of a helicity proxy to edge-on galaxies," v2020.06.17.* DOI:10.5281/zenodo.3897954

11. Prabhu, A., Brandenburg, A., Käpylä, M. J., & Lagg, A.: 2020, *Datasets for "Helicity proxies from linear polarisation of solar active regions," v2020.06.10.* DOI:10.5281/zenodo.3888575

10. Pusztai, I., Juno, J., Brandenburg, A., TenBarge, J. M., Hakim, A., Francisquez, M., & Sundström, A.: 2020, *Datasets for "Dynamo in weakly collisional non-magnetized plasmas impeded by Landau damping of magnetic fields," v1.* DOI:10.5281/zenodo.3886562

9. Brandenburg, A., & Brüggen, M.: 2020, *Datasets for "Hemispheric handedness in the Galactic synchrotron polarization foreground," v2020.05.24.* DOI:10.5281/zenodo.3841900

8. Roper Pol, A., Mandal, S., Brandenburg, A., Kahniashvili, T., & Kosowsky, A.: 2020, *Datasets for "Numerical Simulations of Gravitational Waves from Early-Universe Turbulence"' v2020.02.28.* DOI:10.5281/zenodo.3692072

7. Brandenburg, A., & Scannapieco, E.: 2019, *Datasets for "Magnetic helicity dissipation and production in an ideal MHD code," v2019.11.11.* DOI:10.5281/zenodo.3534739

6. Brandenburg, A., & Chen, L.: 2019, *Datasets for "The nature of mean-field generation in three classes of optimal dynamos," v2019.11.02.* DOI:10.5281/zenodo.3526056

5. Brandenburg, A.: 2019, *Scientific usage of the Pencil Code, v2019.10.01.* DOI:10.5281/zenodo.3466444

4. Brandenburg, A., Kahniashvili, T., Mandal, S., Roper Pol, A., Tevzadze, A. G., & Vachaspati, T.: 2019, *Datasets for "Dynamo effect in decaying helical turbulence," v2019.07.21.* DOI:10.5281/zenodo.3345134

3. Gosain, S., & Brandenburg, A.: 2019, *Datasets for "Spectral magnetic helicity of solar active regions between 2006 and 2017," v2019.07.16.* DOI:10.5281/zenodo.3338302

2. Li, X.-Y., Svensson, G., Brandenburg, A., & Haugen, N. E. L.: 2019, *Datasets for "Cloud droplet growth due to supersaturation fluctuations in stratiform clouds," v2019.01.11.* DOI:10.5281/zenodo.2538027

1. Brandenburg, A., on behalf of the Pencil Code Collaboration: 2018, *Pencil Code v2018.12.16.* DOI:10.5281/zenodo.2315093 and 3961647

E. Other publications, public outreach, interviews, and other public appearances of the name

76. Catanzaro, M.: 2024, *COVID-19 scientists who faced huge bills after speaking in webinars win in court.* (`http://doi.org/10.1126/science.zns9u7b`)

75. Catanzaro, M.: 2023, "Costly invite? Scientists hit with massive bills after speaking at COVID-19 *webinars*," *Science* **381**, 258–259

74. Gurgenidze, M., Clarke, E., Kahniashvili, T., & Brandenburg, A., A.: 2023, *Circularly Polarized Gravitational Waves from the Ealy Universe as a Probe of New Physics.* AAS Meeting #241, id.435.06 Am. Astron. Soc. Meet. #241, id. 435.06. Bull. Am. Astron. Soc., Vol. 55, No. 2 e-id 2023n2i435p06

73. Sun, G., Clarke, E., Kahniashvili, T., & Brandenburg, A., A.: 2023, *Chiral Magnetic Effect and Gravitational Waves in the View of Big Bang Nucleosynthesis.* AAS Meeting #241, id.435.06 Am. Astron. Soc. Meet. #241, id. 435.04. Bull. Am. Astron. Soc., Vol. 55, No. 2 e-id 2023n2i215p04

72. Brandenburg, A.: 2022, "Astrophysical Magnetic Fields: From Galaxies to the Early Universe," *Geophys. Astrophys. Fluid Dyn.* **116**, 537–539

71. Brandenburg, A., & Hochberg, D.: 2022, "Introduction to Origins of Biological Homochirality," *Orig. Life Evol. Biosph.* **52**, 1–2

70. Clarke, E., Kahniashvili, T., Stepp, J., & Brandenburg, A., A.: 2022, *Big Bang Nucleosynthesis Limits and Relic Gravitational Wave Detection Prospects.* APS April Meeting 2022, abstract id.T14.003

69. Stepp, J., Kahniashvili, T., Clarke, E., & Brandenburg, A.: 2022, *Chiral Magnetic Fields and Gravitational Waves.* Am. Astron. Soc. Meet. #240, id. 202.02. Bull. Am. Astron. Soc., Vol. 54, No. 6 e-id 2022n6i202p02

68. Brandenburg, A.: 2022, *Skumanich-55 revisited.* Fifty Years of the Skumanich Relations, Proceedings of the conference held 8-11 March 2022 in Boulder, Colorado. Online at https://skumanich.wdrc.org/, id.53

67. He, Y., Roper Pol, A., & Brandenburg, A.: 2024, "Leading-order nonlinear gravitational waves from reheating magnetogeneses" (arXiv:2110.14456)

66. Sinha, S., Gupta, O., Singh, V., Lekshmi, B., Nandy, D., Mitra, D., Chatterjee, S., Bhattacharya, S., Chatterjee, S., Srivastava, N., & Brandenburg, A.: 2021, *A Comprehensive Analysis of Machine Learning Approaches for Solar Flare Prediction.* AGU Fall Meeting 2021, id. NG45B-0546

65. Clarke, E., Brandenburg, A., He, Y., & Kahniashvili, T.: 2021, *Can We Observe QCD Phase Transition-Generated Gravitational Waves Through Pulsar Timing Arrays?.* Am. Astron. Soc. Meet. #238, id. 230.06. Bull. Am. Astron. Soc., Vol. 53, No. 6 e-id 2021n6i230p06

64. He, Y., Brandenburg, A., Kahniashvili, T., Rheinhardt, M., & Schober, J.: 2021, *Relic Gravitational Waves From The Chiral Magnetic Effect.* Am. Astron. Soc. Meet. #238, id. 230.05. Bull. Am. Astron. Soc., Vol. 53, No. 6 e-id 2021n6i230p05

63. Mtchedlidze, S., Domínguez-Fernández, P., Du, X., Brandenburg, A., & Kahniashvili, T.: 2021, *Primordial Magnetic Fields through Large Scale Structure.* Am. Astron. Soc. Meet. #238, id. 230.05. Bull. Am. Astron. Soc., Vol. 53, No. 6 e-id 2021n6i109p09

62. Brandenburg, A.: 2020, *Magnetic Helicity: diagnostic signatures and effects.* American Geophysical Union, Fall Meeting 2020, abstract #NG011-02

61. Shukurov, A., Brandenburg, A., Brooke, J., Sokoloff, D., & Tavakol, R.: 2020, "David Moss (1943-2020)," *Astron. Geophys.* **61**, 4.12

60. Brandenburg, A., & Rüdiger, G.: 2020, "Karl-Heinz Rädler (1935–2020)," *Astron. Nachr.* **341**, 365

59. Bhat, P., Subramanian, K., & Brandenburg, A.: 2019, "Efficient quasi-kinematic large-scale dynamo as the small-scale dynamo saturates" (arXiv:1905.08278)

58. Pusztai, I., Sundstrom, A., Brandenburg, A., Juno, J., Tenbarge, J. M., & Hakim, A.: 2019, *Towards a fully kinetic dynamo simulation.* APS Division of Plasma Physics Meeting 2019, abstract id.CP10.025

57. Mandal, S., Brandenburg, A., Durrer, R., Kahniashvili, T., Roper Pol, A., Tevzadze, A., Vachaspati, T., & Yin, W.: 2019, *The evolution of primordial magnetic fields due to magnetohydrodynamic turbulence, and their cosmological applications.* APS April Meeting 2019, abstract id.B11.001

56. Brandenburg, A.: 2019, *Learning about solar/stellar dynamo physics from the variability.* Sol. Atmosph. Interplan. Env., http://shinecon.org/shine2019/ViewAbstract.php?idabs=526

55. EPIC 206038483, the 60th planetary system confirmed with the extended Kepler K2 mission (K2-60), adopted by Travis Metcalfe for Axel Brandenburg on the occasion of his 60th anniversary (`http://adoptastar.org/planetary-systems-k2/`)

54. Giampapa, M. S., Cody, A. M., Brandenburg, A., Skiff, B. A., & Hall, J. C.: 2017, *The rotation and chromospheric activity of the solar-type stars in the open cluster M67.* (`http://norlx51.nordita.org/~brandenb/tmp/m67/`)

53. Li, X.-Y., Brandenburg, A., Svensson, G., Haugen, N., & Rogachevskii, I.: 2017, *Turbulence effect on coagulational growth of cloud droplets.* American Geophysical Union, Fall Meeting 2017, abstract #A11I-1984

52. Li, X.-Y., Brandenburg, A., Svensson, G., Haugen, N., & Rogachevskii, I.: 2017, *Turbulence effect on coagulational growth of cloud droplets.* APS Division of Fluid Dynamics (Fall) 2017, abstract id.L16.004

51. Brandenburg, A., Petrie, G., & Singh, N.: 2016, *Two-scale Analysis of Solar Magnetic Helicity.* SDO 2016: Unraveling the Sun's Complexity, Proceedings of the conference held 17-21 October, 2016 in Burlington, VT. Online at `http://sdo-2016.lws-sdo-workshops.org/`, id.110

50. Yokoi, N., & Brandenburg, A.: 2016, *Vortex generation due to inhomogeneous turbulent helicity.* EGU General Assembly 2016, 17-22 April, Vienna Austria, p.8135

49. Cauzzi, G., Shchukina, N., Kosovichev, A., Bianda, M., Brandenburg, A., Chou, D.-Y., Dasso, S., Ding, M.-D., Jefferies, S., Krivova, N., Kuznetsov, V. D., & Moreno-Insertis, F.: 2016, "Commission 12: Solar Radiation and Structure," *Trans. IAU* **29A**, 278–299

48. *Boosting solar physics.* Article by Travis Metcalfe on DKIST/NSO with interview of Axel Brandenburg (`http://www.boulderweekly.com/features/lab-notes/boosting-solar-physics`)

47. Brandenburg, A., Zhang, H., & Sokoloff, D.: 2016, *The magnetic helicity spectrum from solar vector magnetograms.* Am. Astron. Soc., SPD mtg 47, id. 201.03

46. Anders, E. H., Brown, B., Brandenburg, A., & Rast, M.: 2016, *The structure and evolution of boundary layers in stratified convection.* Am. Astron. Soc., SPD mtg 47, id. 7.12

45. Singh, N., Raichur, H., & Brandenburg, A.: 2016, *High-wavenumber solar f-mode strengthening prior to active region formation.* Am. Astron. Soc., SPD mtg 47, id. 7.11

44. Cataldi, G., Brandeker, A., Thebault, P., Singer, K., Ahmed, E., Brandenburg, A., Olofsson, G., & de Vries, B.: 2015, "Characterizing the three-dimensional ozone distribution of a tidally locked Earth-like planet," in *Pathways Towards Habitable Planets, Proceedings of a conference held 13-17 July*, ed. Dawn Gelino, Bern, Switzerland, 49

43. Yokoi, N., & Brandenburg, A.: 2015, *Large-scale flow generation due to inhomogeneous turbulent helicity.* American Geophysical Union, Fall Meeting 2015, abstract NG33A-1847

42. Brandenburg, A.: 2015, "Magnetohydrodynamics of the Sun. By E.R. Priest, Cambridge Univ. Press," *Geophys. Astrophys. Fluid Dyn.* **109**, 615–616

41. Kosovichev, A., Cauzzi, G., Pillet, V. M., Asplund, M., Brandenburg, A., Chou, D.-Y., Christensen-Dalsgaard, J., Gan, W., Kuznetsov, V. D., Rovira, M. G., Shchukina, N., Venkatakrishnan, P.: 2015, "Division II: Commission 12: Solar Radiation and Structure," *Trans. IAU* **T28 10**, 109–111

40. Kemel, K., Brandenburg, A., Kleeorin, N., Mitra, D., & Rogachevskii, I.: 2014, "Active region formation through the negative effective magnetic pressure instability," in *Solar Dynamics and Magnetism from the Interior to the Atmosphere*, ed. N. N. Mansour, A. G. Kosovichev, R. Komm, & D. Longcope, Springer–New York, pp. 293–313 (Reprint from journal publication listed above as A.292)

39. Brandenburg, A.: 2014, "Sökandet efter en ny teori för solfläckar," *Fysikaktuellt* **2014-1**, 22–23 `http://www.fysikersamfundet.se/Fysikaktuellt/2014_1.pdf`

38. Brandenburg, A., & Lazarian, A.: 2014, "Astrophysical hydromagnetic turbulence," in *Microphysics of Cosmic Plasmas, Space Sciences Series of ISSI, Volume 47*, ed. A. Balogh, A. Bykov, P. Cargill, R. Dendy, T. Dudok de Wit, & J. Raymond, Springer Science+Business Media New York, pp. 87–124 (Reprint from journal publication listed above as A.297)

37. Bykov, A. M., Brandenburg, A., Malkov, M. A., & Osipov, S. M.: 2014, "Microphysics of cosmic ray driven plasma instabilities," in *Microphysics of Cosmic Plasmas, Space Sciences Series of ISSI, Volume 47*, ed. A. Balogh, A. Bykov, P. Cargill, R. Dendy, T. Dudok de Wit, & J. Raymond, Springer Science+Business Media New York, pp. 125–156 (Reprint from journal publication listed above as A.296)

36. Brandenburg, A., & Rogachevskii, I.: 2013, "Introduction to Special Issue: From Mean-Field to Large-Scale Dynamos," *Geophys. Astrophys. Fluid Dyn.* **107**, 1–2

35. "Towards an understanding of the Sun's Butterfly Diagram," public outreach article by Sabine Hossenfelder on her blog `http://backreaction.blogspot.jp/` of 8 October 2012. `http://backreaction.blogspot.jp/2012/10/towards-understanding-of-suns-butterfly.html`

34. Kosovichev, A., Lundstedt H., & Brandenburg, A.: 2012, "Special issue on current research in astrophysical magnetism," *Phys. Scr.* **86**, 010201

33. Chian, A. C.-L., Brandenburg, A., Proctor, M. R. E., & Rempel, E. L.: 2012, "On-off intermittency and Lagrangian coherent structures in solar dynamo," *Geophys. Res. Abstracts* **14**, 2444

32. Kosovichev, A., Cauzzi, G., Pillet, V. M., Asplund, M., Brandenburg, A., Chou, D.-Y., Christensen-Dalsgaard, J., Gan, W., Kuznetsov, V. D., Rovira, M. G., Shchukina, N., Venkatakrishnan, P.: 2012, "Commission 12: Solar Radiation and Structure," *Transactions IAU* **7**, 81–94

31. Brandenburg, A., & Dobler, W.: 2010, Pencil Code: Finite-difference Code for Compressible Hydrodynamic Flows, Astrophysics Source Code Library, record ascl:1010.060

30. "Cycles of the Sun," Interview with Axel Brandenburg by British Publishers, January 2010, also published in EU Research, "The latest research from FP7," pp. 114-115, June 2010, www.euresearch.com `http://www.nordita.org/~brandenb/AstroDyn/material/Solar_Activity_10.pdf`

29. Plasson, R., Bersini, H., & Brandenburg, A.: 2009, "Emergence of protometabolisms and the self-organization of non-equilibrium reaction networks," *Orig. Life Evol. Biosph.* **39**, 263–264

28. Brandenburg, A., 2009, Res. Astron. Astrophys. **9**, "A record low in solar activity inspires theorists about grand minima" `http://www.raa-journal.org/docs/newsandviews/0909_newsandviews_abrandenburg.html`

27. Kosovichev, A.G., Arlt, R., Bonanno, A., Brandenburg, A., Brun, A.S., Busse, F., Dikpati, M., Hill, F., Gilman, P.A., Nordlund, A., Rüdiger, G., Stein, R.F., Sekii, T., Stenflo, J.O., Ulrich, R.K., Zhao, J.: 2009, "Solar dynamo and magnetic self-organization," in *Astro2010: The Astronomy and Astrophysics Decadal Survey*, ed. Science White Papers, No. 160, pp. 1–8

26. Green, C., Brandenburg, A., & Kosovichev, A.: 2008, *Non-linear Modeling of Wavelike Behaviour of Supergranulation*. Am. Geophys. Union, Spring Meeting 2008, abstract SP21A-04

25. Interview with Axel Brandenburg by the Swedish Research Council (Siv Engelmark Cederborg), 2008

24. Plasson, R., Bersini, H., & Brandenburg, A.: 2008, Decomposition of complex reaction networks into reactons (arXiv:0803.1385)

23. Podcast with Simon Mitton interviewing Axel Brandenburg: 2008, *Is All Life Left-Handed?*

22. Publication based on text by Brandenburg, A., & Käpylä, P. J.: 2007, *Uusimmat turbulenssilaskut osoittavat pullonkaulaefektin olevan aito*. CSC Uutiset

21. Brandenburg, A., Lehto, H. J., & Lehto, K. M.: 2007, "Origin of homochirality in an early peptide world," *Int. J. Astrobiol.* **6**, 80–80

20. Brandenburg, A., Andersen, A. C., & Multamäki, T.: 2006, "Homochirality and the moment when life came about," *BioZoom* **9/2**, 8–11

19. Brandenburg, A., Andersen, A. C., & Multamäki, T.: 2006, "Homochirality – The problem of left handed amino acids," *Gamma* **142**, 22–31

18. Poole, A. M., Hode, T., Brandenburg, A., Hjalmarson, Å., & Holm, N. G.: 2006, "Life up North," *Astrobiol.* **6**, 815–818

17. Andersen, A. C., Brandenburg, A., & Multamäki, T.: 2005, "Er det en naturlov at aminosyrer er venstredrejede?" *Kvant* **9/16**, 18–21

16. Andersen, A. C., & Brandenburg, A.: 2005, "Nordisk astrobiologi," *BioZoom* **8/2**, 7–8

15. Andersen, A. C., & Brandenburg, A.: 2005, "Editorial: astrobiological problems for physicists and biologists," *Int. J. Astrobiol.* **4**, 1–2

14. Brandenburg, A.: 2004, "Magnetohydrodynamic Turbulence. By Dieter Biskamp. Cambridge University Press, 2003. 310 pp," *J. Fluid Mech.* **503**, 378–379

13. Brandenburg, A., Andersen, A. C., Höfner, S., & Nilsson, M.: 2004, "Homochiral growth through enantiomeric cross-inhibition," *Int. J. Astrobio. Suppl.* **3**, 106–106

12. Brandenburg, A., Andersen, A. C., Höfner, S., & Nilsson, M.: 2004, "Homochiral growth through enantiomeric cross-inhibition," *Geochimica et Cosmochimica Acta* **68**, A792–A792

11. von Rekowski, B., & Brandenburg, A.: 2003, "Outflows and accretion in a protostellar star-disc system," *Astron. Nachr.* **324**, 68–68

10. Brandenburg, A.: 2002, *The solar dynamo: worrying about magnetic helicity.* Presented at the KITP Conference: Observational Challenges for the Next Decade of Solar Magnetohydrodynamics, Jan 16, 2002, Kavli Institute for Theoretical Physics, University of California, Santa Barbara

9. Brandenburg, A.& Boldyrev, S. H.: 2001, "Burgers Turbulence and the Problem of Star Formation," *Bull. Am. Astron. Soc.* **199**, 149.01

8. Brandenburg, A.& Boldyrev, S. H.: 2000, "Small-scale kinematic dynamo with helicity," *Bull. Am. Phys. Soc.* **42**, BP1.059

7. Saar, S. H. & Brandenburg, A.: 1998, "Time evolution of the magnetic activity cycle period: results for an expanded stellar sample," *Bull. Am. Astron. Soc.* **193**, 4404

6. Stein, R. F., Bercik, D. J., Brandenburg, A., Georgobiani, D., Nordlund, Å.: 1997, "Solar Magneto-Convection," *Bull. American Astron. Soc.* **74**, 17–17

5. Vishniac, E. T., & Brandenburg, A.: 1995, "An incoherent alpha–Omega dynamo mechanism for accretion disks," *Bull. Am. Astron. Soc.* **187**, 10409

4. Brandenburg, A., Tuominen, I., & Ruokolainen, J.: 1991, "Simulating solar hydromagnetism," */csc/news* **3**, 3–5

3. Brandenburg, A., Krause, F., Moss, D., & Tuominen, I.: 1991, "Can the Lorentz force accelerate magnetic field expansion?" *Astron. Ges. Abstr. Ser.* **6**, 32–32

2. Brandenburg, A.: 1991, "Challenges for solar dynamo theory: alpha effect, differential rotation and stability," *Nachr. Akad. Wiss. Göttingen II. Mathem. Phys. Klasse* **2**, 16–17

1. Donner, K. J., Brandenburg, A.: 1990, "Structure of dynamo generated galactic magnetic fields," in *Proc. Nordic-Baltic Astronomy Meeting*, ed. C.-I. Lagerkvist, D. Kiselman & M. Lindgren, Uppsala Univ. (Sweden), Astronomiska Observatoriet, 16

`$Id: curri.tex,v 1.2714 2025/01/31 12:43:18 brandenb Exp $`