

BIBLIOGRAPHY

- [¹] **Relativity in the Global Positioning System**, Neil Ashby, 28 Jan 2003, Max Planck Institute for Gravitational Physics, *Living Rev. Relativity*
<http://relativity.livingreviews.org/Articles/lrr-2003-1/>
- [²] **From the Closed World to the Infinite Universe**, Alexandre Koyrè, 1957, The John's Hopkins Press, pg. 274
- [³] **Galaxy Map Reveals the Limits of Cosmic Structure**, Ron Cowen, *Science News*, August 12, 2000, Vol. 158 No. 7 p. 104
<http://www.sciencenews.org/pages/pdfs/data/2000/158-07/15807-12.pdf>
- [⁴] **A Map of the Universe**, J. Richard Gott, III, et al, *Astrophysical Journal*, October 2005, *Astrophys.J.*624:463,2005
<http://arxiv.org/abs/astro-ph/0310571v2>
- [⁵] **A 3% Solution: Determination of the Hubble Constant with the Hubble Space Telescope and Wide Field Camera 3**, Riess, Adam G., et al., Mar. 2011, *The Astrophysical Journal*, Vol. 730, 119
<http://adsabs.harvard.edu/abs/2011ApJ...730..119R>
- [⁶] **THE COSMIC MICROWAVE BACKGROUND SPECTRUM FROM THE FULL COBE FIRAS DATA SET**, D. J. Fixsen, et al., *The Astrophysical Journal*, 473:576-587, 1996 December 20
<http://iopscience.iop.org/0004-637X/473/2/576/>
- [⁷] **On the attraction between two perfectly conducting plates**, H. B. G. Casimir, May 1948, Digital Web Center for the History of Science in the Low Countries
<http://www.dwc.knaw.nl/DL/publications/PU00018547.pdf>
- [⁸] **Electromagnetic vacuum fluctuations, Casimir and Van der Waals forces**, Cyriaque Genet, Francesco Intravaia, Astrid Lambrecht, and Serge Reynaud, September 2003, Laboratoire Kastler Brossel, case 74, Campus Jussieu, 75252 Paris, France
<http://arxiv.org/abs/quant-ph/0302072v2>
- [⁹] **Attractive Forces between Flat Plates**, M. J. Sparnaay, *Nature*, Volume 180, Issue 4581, pp. 334-335 (1957)
<http://adsabs.harvard.edu/abs/1957Natur.180..334S>

[10] **The Direct Measurement of Normal and Retarded van der Waals Forces**, D. Tabor and R. H. S. Winterton, *Proc. R. Soc. Lond. A* 30 September 1969 vol. 312 no. 1511 435-450

<http://rspa.royalsocietypublishing.org/content/312/1511/435>

[11] **Demonstration of the Casimir Force in the 0.6 to 6 μ m Range**, S. K. Lamoreaux, *Physical Review Letters*, Vol. 78, 5–8 (1997)

http://prl.aps.org/abstract/PRL/v78/i1/p5_1

[12] **The Quantum Vacuum and the Cosmological Constant Problem**, Svend Erik Rugh, Henrik Zinkernagel, 28 Dec 2000, *Studies in History and Philosophy of Modern Physics*, vol. 33 (2002), 663-705

<http://arxiv.org/abs/hep-th/0012253>

[13] **A Suggested Interpretation of the Quantum Theory in Terms of "Hidden" Variables. I**, David Bohm, 1952, *Physical Review*, vol. 85, Issue 2, pp. 166-179

<http://adsabs.harvard.edu/abs/1952PhRv...85..166B>

[14] **A Suggested Interpretation of the Quantum Theory in Terms of "Hidden" Variables. II**, David Bohm, 1952, *Physical Review*, vol. 85, Issue 2, pp. 180-193

<http://adsabs.harvard.edu/abs/1952PhRv...85..180B>

[15] **The Quantum: Einstein, Bohr and the Great Debate About the Nature of Reality**, Manjit Kumar, 2010, W. W. Norton & Co., ISBN 1848310358

[16] Harvard Smithsonian Center for Astrophysics, Press Release No.: 2011-28, October 06, 2011

<http://www.cfa.harvard.edu/news/2011/pr201128.html>

[17] **THE TeV ENERGY SPECTRUM OF MARKARIAN 501 MEASURED WITH THE STEREOSCOPIC TELESCOPE SYSTEM OF HEGRA DURING 1998 AND 1999**, F. Aharonian, et al., *Astrophysical Journal*, vol. 546, No. 2, 2001 January 10, doi:10.1086/318321

<http://iopscience.iop.org/0004-637X/546/2/898/>

[18] **Extensive Cosmic-Ray Showers**, Pierre Auger, et al., *Reviews of Modern Physics*, vol. 11, Issue 3-4, p.288-291, August 1939

<http://adsabs.harvard.edu/abs/1939RvMP...11..288A>

[19] **On the Origin of the Cosmic Radiation**, Fermi, Enrico, April 1949, *Physical Review*, vol. 75, Issue 8, pp. 1169-1174

<http://adsabs.harvard.edu/abs/1949PhRv...75.1169F>

- [20] **Cosmic-Ray Air Showers at Sea Level**, G. W. Clark, et al., *Physical Review*, vol. 122, Issue 2, pp. 637-654, April 1961
<http://adsabs.harvard.edu/abs/1961PhRv..122..637C>
- [21] **Mysteries that still need to be solved**, Pierre Auger Observatory website
http://www.auger.org/cosmic_rays/mysteries.html
- [22] **Ultra-High Energy Cosmic Rays**, HiRes Fly's Eye website
<http://www.cosmic-ray.org/reading/uhecr.html>
- [23] **Philosophiæ Naturalis Principia Mathematica**, Issac Newton, 1687; 1729 translation from Latin into English by Andrew Motte
<http://archive.org/details/newtonspmathema00newtrich>
- [24] **The Universe**, NASA website
http://map.gsfc.nasa.gov/universe/uni_shape.html
- [25] **Einstein's Theory of Relativity**, Max Born, 1962 edition, Dover Publications, page 265-266, SBN code 486-60769-0
- [26] **Neutral hydrogen in M 33 and M 101**, Volders, L., Sep 1959, *Bulletin of the Astronomical Institutes of the Netherlands*, Vol. 14, p. 323
<http://adsabs.harvard.edu/abs/1959BAN....14..323V>
- [27] **Extended rotation curves of high-luminosity spiral galaxies**, Rubin, V. C., Thonnard, N., Ford, W., Nov. 1978, *Astrophysical Journal*, 225:L107-L111
<http://adsabs.harvard.edu/abs/1978ApJ...225L.107R>
- [28] **A modification of the Newtonian dynamics as a possible alternative to the hidden mass hypothesis**, Milgrom, M., Jul 1983, *Astrophysical Journal*, Part 1 vol. 270, p. 365-370.
<http://adsabs.harvard.edu/abs/1983ApJ...270..365M>
- [29] **ANALYTICAL MECHANICS. – A theorem relative to the motion of a point pulled towards a fixed centre**, J. Bertrand, Comptes Rendus of the Acad'emie des Sciences de Paris, 20th October 1873
http://arxiv.org/PS_cache/arxiv/pdf/0704/0704.2396v1.pdf
- [30] **Gravity Probe B: Testing Einstein's Universe**, NASA Fact Sheet, Marshall Space Flight Center, February 2005
http://einstein.stanford.edu/content/fact_sheet/GPB_FactSheet-0405.pdf
- [31] **Andromeda Adrift in Sea of Dust in New NASA Image**, Pauline Barmby, et al., Harvard-Smithsonian Center for Astrophysics, NASA Mission News, June 5, 2006
<http://www.nasa.gov/vision/universe/starsgalaxies/spitzer-20060605.html>

[32] **The Scale of the Universe**, Harlow Shapley and Heber D. Curtis, Bulletin of the National Research Council, Vol. 2, Part 3, May, 1921, Number 11, pp 171-217.
http://apod.nasa.gov/diamond_jubilee/1920/cs_nrc.html

[33] **How Many Stars Are in the Milky Way**, Nicholas Wethington, *Universe Today*, Dec. 16, 2008
<http://www.universetoday.com/22380/how-many-stars-are-in-the-milky-way/>

[34] **The Bar and Spiral Structure Legacy (BeSSeL) Survey: Mapping the MilkyWay with VLBI Astrometry**, Andreas Brunthaler, et al., submitted 28 Feb 2011, to be published in *Reviews in Modern Astronomy*, Volume 2
<http://arxiv.org/abs/1102.5350>

[35] **Astronomy Picture of the Day**, NASA, June 9, 2006
<http://apod.nasa.gov/apod/ap060609.html>

[36] **The Realm of the Nebulae**, Edwin P. Hubble, 1936, Yale University Press, ISBN 0-300-02500-9

[37] **The Solar Motion Relative to the Local Group**, Courteau, Stéphane; van den Bergh, Sidney, July 1999, *Astrophysical Journal*, Volume 118, Issue 1, pp. 337-345.
<http://adsabs.harvard.edu/abs/1999AJ....118..337C>

[38] **Masses for the Local Group and the Milky Way**, Li, Yang-Shy and White, Simon D. M., *Royal Astronomical Society*, Vol. 384, Issue 4, pp. 1459-1468, Mar. 2008
<http://adsabs.harvard.edu/abs/2008MNRAS.384.1459L>

[39] **Updated Information on the Local Group**, Sidney van den Bergh, 4 Jan 2000, Publications of the Astronomical Society of the Pacific, 112:529-536
<http://arxiv.org/abs/astro-ph/0001040v1>

[40] **HISTORY OF THE LOCAL GROUP**, Sidney van den Bergh, 12 May 2003, to be published in "The Local Group as an Astrophysical Laboratory," Cambridge University Press
<http://arxiv.org/abs/astro-ph/0305042v2>

[41] **THE LOCAL GROUP AND OTHER NEIGHBORING GALAXY GROUPS**, I. D. Karachentsev, January 2005, *The Astronomical Journal*, 129:178–188
<http://arxiv.org/abs/astro-ph/0410065>

[42] **A New Galaxy in the Local Group: the Antlia Dwarf Galaxy**, Alan B. Whiting, June 1997, *The Astrophysical Journal*, DOI: 10.1086/118530
<http://arxiv.org/abs/astro-ph/9706173>

- [43] **The ARAUCARIA Project – First Observations of Blue Supergiants in NGC 3109**, Chris Evans, et al., Dec. 2006, *The Messenger*, Vol. 126, p. 5-6
<http://adsabs.harvard.edu/abs/2006Msngr.126....5E>
- [44] **The discovery of the spiral arms of the Milky Way**, Gingerich, O., June 1983, *Proceedings of the 106th Symposium, Groningen, Netherlands*, Reidel Publishing Co. p. 59-70.
<http://adsabs.harvard.edu/abs/1985IAUS..106...59G>
- [45] **Kinematic Peculiarities of Gould Belt Stars**, V. V. Bobylev, Dec. 2005, *Astronomy Letters*, Vol. 30, No. 11, 2004, pp. 785-796
<http://arxiv.org/abs/astro-ph/0512567>
- [46] **A uniform CO survey of the molecular clouds in Orion and Monoceros**, Wilson, B. A., et al., 2005, *Astronomy and Astrophysics*, v.430, p.523-539
<http://adsabs.harvard.edu/abs/2005A&A...430..523W>
- [47] **NASA Extragalactic Database: Starlink Guide 10**, Grant Privett, 30 January 1998, *Science and Technology Facilities Council*
<http://www.starlink.rl.ac.uk/docs/sg10.htx/node53.html>
<http://ned.ipac.caltech.edu/level5/Andernach/Andern.html>
- [48] **Capabilities of the NASA/IPAC Extragalactic Database**, Joseph M. Mazzarella, et al., July 2001, *Proceedings of SPIE: Astronomical Data Analysis*, Table 1. NED database contents
<http://arxiv.org/abs/astro-ph/0111200>
- [49] **December 2010-April 2011 Revisions**, NED History page
<http://ned.ipac.caltech.edu/help/nedhistory.html>
- [50] **June-September 2012 Revisions**, NED History page
<http://ned.ipac.caltech.edu/help/nedhistory.html>
- [51] **Seven-Year Wilkinson Microwave Anisotropy Probe (WMAP1)**, N. Jarosik, et al., Jan. 2010, *Astrophysical Journal Supplement Series*, Table 8
<http://arxiv.org/abs/1001.4744>
- [52] **Cosmology: A Research Briefing**, Board on Physics and Astronomy, National Research Council, 1995, *National Academy Press*, pg. 17
http://www.nap.edu/openbook.php?record_id=9293
- [53] **Redshifts and Magnitudes of Extragalactic Nebulae**, Humason, M.L.; Mayall, N.U.; Sandage, A.R., April 1956, *Astronomical Journal*, Vol. 61, p. 97-162
http://adsabs.harvard.edu/cgi-bin/bib_query?1956AJ.....61..97H

- [54] **Celestial Mechanics**, Dr. J. B. Tatum, 2000 – 2013, Chapter 4. Coordinate Geometry in Three Dimensions
<http://www.astro.uvic.ca/~tatum/celmechs.html>
- [55] **Practical Astronomy With Your Calculator**, Peter Duffet-Smith, Cambridge University Press, 1988, Third Edition
- [56] **Guide to NED Search Results Pages**, NASA/IPAC EXTRAGALACTIC DATABASE, Latest Revision: 22 May 2012
http://ned.ipac.caltech.edu/help/objresult_help.html
- [57] **OUR PECULIAR MOTION AWAY FROM THE LOCAL VOID**, R. Brent Tully, et al, *The Astrophysical Journal*, Vol. 676, Issue 1, pp. 184-205
<http://adsabs.harvard.edu/abs/2008ApJ...676..184T>
- [58] **Distance Estimates For 1791 Galaxies**, R.B. Tully, E.J. Shaya, I.D. Karachentsev, H.M. Courtois, D.D. Kocevski, L. Rizzi, A. Peel
<http://www.ifa.hawaii.edu/~tully/voidtable1>
- [59] **The Structure of the Universe Traced by Rich Clusters of Galaxies**, Einasto, M., et al., 1994, *Monthly Notices of the Royal Astronomical Society*, Vol. 269, NO. 2/JUL15, P. 301
<http://adsabs.harvard.edu/abs/1994MNRAS.269..301E>
- [60] **Dynamics of elliptical galaxies and other spheroidal components**, James Binney, 1982, *Annual Review of Astronomy and Astrophysics*, Vol. 20, p. 399-429
http://adsabs.harvard.edu/cgi-bin/nph-bib_query?1982ARA%26A..20..399B&db_key=AST
- [61] **Doppler Red Shifts Due to Universe Rotations**, Philip Calabrese, 2006, The Urantia Book Historical Society
<http://www.ubhistory.org>
- [62] **THE SLOAN GREAT WALL. MORPHOLOGY AND GALAXY CONTENT**, Einasto, M., et al., 9 May 2011, accepted for publication in *The Astrophysical Journal*
<http://adsabs.harvard.edu/abs/2011ApJ...736...51E>
- [63] **The Sloan Great Wall from the SDSS Data Release 4**, Deng, Xin-Fa, et al., January 2007, *Acta Physica Polonica B*, Vol. 38, Issue 1, p.219
<http://adsabs.harvard.edu/abs/2007AcPPB..38..219D>

[64] Observational Evidence from Supernovae for an Accelerating Universe and a Cosmological Constant, Adam G. Reiss, et al, May 1998, *Astronomical Journal*, 116:1009-1038,1998

<http://adsabs.harvard.edu/abs/1998AJ....116.1009R>

[65] The Absolute Magnitudes of Type IA Supernovae, Phillips, M. M., August 1993, *Astrophysical Journal*, Part 2 - Letters (ISSN 0004-637X), Vol. 413, no. 2, p. L105-L108

<http://adsabs.harvard.edu/abs/1993ApJ...413L.105P>

[66] IMPROVED COSMOLOGICAL CONSTRAINTS FROM NEW, OLD, AND COMBINED SUPERNOVA DATA SETS, M. Kowalski, et al., October 2008, *Astrophysical Journal*, Volume 686, Issue 2, pp. 749-778

<http://adsabs.harvard.edu/abs/2008ApJ...686..749K>

[67] The Potential of White Dwarf Cosmochronology, G. Fontaine, P. Brassard, and P. Bergeron, Apr. 2001, *Publications of the Astronomical Society of the Pacific*, Volume 113, Issue 782, pp. 409-435

<http://adsabs.harvard.edu/abs/2001PASP..113..409F>

[68] RCW 86: A Type Ia Supernova in a Wind-Blown Bubble, Brian J. Williams, et al., August 2011, accepted for publication in the *Astrophysical Journal*

<http://arxiv.org/abs/1108.1207v1>

[69] The Supernova of A.D. 1006, Gardner, F. F., Milne, D. K., Nov. 1965, *Astronomical Journal*, Vol. 70, p. 754

<http://adsabs.harvard.edu/abs/1965AJ....70..754G>

[70] Tycho Brahe's 1572 supernova as a standard type Ia explosion revealed from its light echo spectrum, Oliver Krause, et al., Oct. 2008, accepted for publication in *Nature*

<http://arxiv.org/abs/0810.5106>

[71] A Deep Chandra Observation of Kepler's Supernova Remnant, Reynolds, Stephen P., et al., Oct. 2007, *The Astrophysical Journal*, Volume 668, Issue 2, pp. L135-L138

<http://adsabs.harvard.edu/abs/2007ApJ...668L.135R>

[72] Important Clue Uncovered for the Origins of a Type of Supernovae Explosion, contact: B. Rose Huber, Mar 1, 2012, University of Pittsburgh News & Media Relations

<http://www.news.pitt.edu/supernovae>

- [73] **Is the low-l microwave background cosmic?**, Dominik J. Schwarz (CERN), et al., Mar. 2004, *Physical Review Letters* 93 221301, 24 Nov 2004
<http://arxiv.org/abs/astro-ph/0403353v3>
- [74] **The Axis of Evil**, Kate Land and Joao Magueijo, Feb. 2005, *Physical Review Letters* 95 071301
<http://arxiv.org/abs/astro-ph/0502237>
- [75] **The Trouble with Physics**, Lee Smolin, 2007, Houghton Mifflin Co., p. 208-209, ISBN 978-0-618-918680-3
- [76] **Superluminal Recession Velocities**, Tamara M. Davis and Charles H. Lineweaver, January 2001, *Cosmology and Particle Physics 2000 Conference Proceedings*
<http://arxiv.org/abs/astro-ph/0011070>
- [77] **The Highest Energy Particle Ever Recorded**, HiRes Fly's Eye website
<http://www.cosmic-ray.org/reading/flyseye.html>
- [78] **Trigonometric Parallaxes of Massive Star-Forming Regions. VI. Galactic Structure, Fundamental Parameters, and Noncircular Motions**, Reid, M. J., et al., July 2009, *The Astrophysical Journal*, Volume 700, Issue 1, pp. 137-148
<http://adsabs.harvard.edu/abs/2009ApJ...700..137R>
- [79] **Large-Angle Anomalies in the CMB**, Craig J. Copi, Dragan Huterer, et al., 2010, *Advances in Astronomy*, Article ID 847541
<http://arxiv.org/abs/1004.5602>
- [80] **Pattern speeds in the Milky Way**, Ortwin Gerhard, 12 March 2010, Max Planck Institute
<http://arxiv.org/abs/1003.2489>
- [81] **The APM Bright Galaxy Catalogue**, Jon Loveday, 11 March 1996, FERMI LAB-PUB-95/132, Fermi National Accelerator Laboratory
<http://arxiv.org/abs/astro-ph/9603040v1>
- [82] **On the Spiral Structure of Disk Galaxies**, Lin, C. C., Shu, Frank H., August 1964, *Astrophysical Journal*, vol. 140, p.646
<http://adsabs.harvard.edu/abs/1964ApJ...140..646L>
- [83] **The Galactic Environment of the Sun**, Priscilla Frisch, January 2000, *American Scientist Online*, Volume: 88 Number: 1 Page: 52
<http://web.archive.org/web/20071124131720/http://www.americanscientist.org/template/AssetDetail/assetid/21173/page/2?&print=yes#20970>

- [⁸⁴] **A New Interpretation of the Galactic Structure from H II Regions**, Courtes, G., et al., 1970, Proceedings from 38th IAU Symposium
<http://adsabs.harvard.edu/abs/1970IAUS...38..209C>
- [⁸⁵] **A Preliminary Study of the Orion Nebula Cluster Structure and Dynamics**, Hillenbrand, Lynne A., et al., Jan 1998, *Astrophysical Journal*, v.492, p.540
<http://adsabs.harvard.edu/abs/1998ApJ...492..540H>
- [⁸⁶] **The Gould's Belt Distances Survey**, Laurent Loinard, Nov. 2012, *Proceedings IAU Symposium* No. 289, 2012
<http://arxiv.org/abs/1211.1742v1>
- [⁸⁷] **The Milky Way in Molecular Clouds: A New Complete CO Survey**, Dame, T. M., et al., Feb. 2001, *The Astrophysical Journal*, Volume 547, Issue 2, pp. 792-813
<http://adsabs.harvard.edu/abs/2001ApJ...547..792D>
- [⁸⁸] **The Origin of the Local System of Gas and Stars**, Olano, C. A., Feb. 2001, *The Astrophysical Journal*, Volume 121, Issue 1, pp. 295-308
<http://adsabs.harvard.edu/abs/2001AJ....121..295O>
- [⁸⁹] **The Mass and Structure of the Pleiades Star Cluster from 2MASS**, Adams Joseph D., et al., submitted Apr. 2001, *The Astrophysical Journal*
<http://arxiv.org/abs/astro-ph/0101139>
- [⁹⁰] **The CFHT Open Star Cluster Survey**, Kalirai, Jasonjot S., et al., Oct. 2003, *The Astrophysical Journal*, 126 (2003) 1402
<http://arxiv.org/abs/astro-ph/0306241>
- [⁹¹] **XHIP-II: Clusters and Associations**, Francis, Charles, et al., submitted Mar. 2012, *Astronomy Letters*
<http://arxiv.org/abs/1203.4945>
- [⁹²] **The Stellar Populations of Praesepe and Coma Berenices**, Kraus, Adam L., et al., Aug. 2007, *The Astrophysical Journal*, 134:2340-2352, 2007
<http://arxiv.org/abs/0708.2719>
- [⁹³] **Trigonometric Parallaxes of Massive Star Forming Regions**, Reid, M. J., et al., Feb. 2009, *The Astrophysical Journal*, 700:137-148, 2009
<http://arxiv.org/abs/0902.3913>

^[94] **The ACS Virgo Cluster Survey. XIII. SBF Distance Catalog and the Three-Dimensional Structure of the Virgo Cluster**, Simona, Mei, et al., Feb. 2007, *The Astrophysical Journal*, 655:144-162,2007
<http://arxiv.org/abs/astro-ph/0702510>

^[95] **The ROSAT Brightest Cluster Sample**, Ebeling, H., et al., Dec. 1998, *Monthly Notices of the Royal Astronomical Society*, Vol. 301, pp881–914
<http://arxiv.org/abs/astro-ph/9812394>

^[96] **Planck 2013 Results**, Planck Collaboration Team, Mar. 2013, *Astronomy & Astrophysics*, Vol. 301, pp881–914
<http://arxiv.org/abs/1303.5062>