

Top cited papers

http://inspirehep.net/info/hep/stats/topcites/2014/eprints/to_astro-ph_annual.html

1. Cosmological model of the universe

[2171](#) citations in 2014

[Planck 2013 results. XVI. Cosmological parameters](#)

Planck Collaboration (P.A.R. Ade (Cardiff U.) *et al.*). Mar 20, 2013. 67 pp.

Published in *Astron.Astrophys.* 571 (2014) A16

e-Print: [arXiv:1303.5076](#) [astro-ph.CO] | [PDF](#)

2. Detection/nondetection of primordial gravitational waves

[896](#) citations in 2014

[Detection of B-Mode Polarization at Degree Angular Scales by BICEP2](#)

BICEP2 Collaboration (P.A.R. Ade (Cardiff U.) *et al.*). Mar 16, 2014. 19 pp.

Published in *Phys.Rev.Lett.* 112 (2014) 241101

e-Print: [arXiv:1403.3985](#) [astro-ph.CO] | [PDF](#)

[142](#) citations in 2014

[Toward an Understanding of Foreground Emission in the BICEP2 Region](#)

Raphael Flauger (Princeton, Inst. Advanced Study & New York U., CCPP), J. Colin Hill, David N. Spergel (Princeton U., Astrophys. Sci. Dept.). May 28, 2014. 11 pp.

Published in *JCAP* 1408 (2014) 039

e-Print: [arXiv:1405.7351](#) [astro-ph.CO] | [PDF](#)

[142](#) citations in 2014

[A joint analysis of Planck and BICEP2 B modes including dust polarization uncertainty](#)

Michael J. Mortonson (UC, Berkeley, Space Sci. Dept. & LBNL, Berkeley), Uroš Seljak (UC, Berkeley & UC, Berkeley, Astron. Dept. & LBNL, Berkeley). May 22, 2014. 12 pp.

Published in *JCAP* 1410 (2014) 10, 035

DOI: [10.1088/1475-7516/2014/10/035](https://doi.org/10.1088/1475-7516/2014/10/035)

e-Print: [arXiv:1405.5857](#) [astro-ph.CO] | [PDF](#)

3. Accelerating Universe

[818](#) citations in 2014

[Measurements of Omega and Lambda from 42 high redshift supernovae](#)

Supernova Cosmology Project Collaboration (S. Perlmutter (UC, Berkeley, CfPA) *et al.*). Dec 1998. 33 pp.

Published in *Astrophys.J.* 517 (1999) 565-586

e-Print: [astro-ph/9812133](#) | [PDF](#)

[816](#) citations in 2014

[Observational evidence from supernovae for an accelerating universe and a cosmological constant](#)

Supernova Search Team Collaboration (Adam G. Riess (UC, Berkeley, Astron. Dept.) *et al.*). May 1998. 36 pp.

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4. Dark matter direct (non)detection

[516](#) citations in 2014

[First results from the LUX dark matter experiment at the Sanford Underground Research Facility](#)

[LUX](#) Collaboration ([D.S. Akerib \(Case Western Reserve U.\) et al.](#)). Oct 30, 2013. 7 pp.
Published in **Phys.Rev.Lett.** **112** (2014) **9**, **091303**
e-Print: [arXiv:1310.8214](#) [[astro-ph.CO](#)] | [PDF](#)

[366](#) citations in 2014

[Dark Matter Results from 225 Live Days of XENON100 Data](#)
[XENON100](#) Collaboration ([E. Aprile \(Columbia U.\) et al.](#)). Jul 2012. 5 pp.
Published in **Phys.Rev.Lett.** **109** (2012) **181301**
e-Print: [arXiv:1207.5988](#) [[astro-ph.CO](#)] | [PDF](#)

[146](#) citations in 2014

[New results from DAMA/LIBRA](#)
[DAMA](#) and [LIBRA](#) Collaborations ([R. Bernabei \(Rome U. & INFN, Rome\) et al.](#)). 2010.
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[119](#) citations in 2014

[The XENON1T Dark Matter Search Experiment](#)
[XENON1T](#) Collaboration ([Elena Aprile \(Columbia U.\)](#) for the collaboration). Jun 2012. 4 pp.
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e-Print: [arXiv:1206.6288](#) [[astro-ph.IM](#)] | [PDF](#)

5. Universal dark matter halo

[470](#) citations in 2014

[A Universal density profile from hierarchical clustering](#)
[Julio F. Navarro \(Arizona U., Astron. Dept. - Steward Observ.\)](#), [Carlos S. Frenk \(Durham U.\)](#), [Simon D.M. White \(Garching, Max Planck Inst.\)](#). Nov 1996.
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[372](#) citations in 2014

[The Structure of cold dark matter halos](#)
[Julio F. Navarro \(Arizona U., Astron. Dept. - Steward Observ.\)](#), [Carlos S. Frenk \(Durham U.\)](#), [Simon D.M. White \(Garching, Max Planck Inst.\)](#). Aug 1995. 22 pp.
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e-Print: [astro-ph/9508025](#) | [PDF](#)

6. Highest Mass Neutron Star

[294](#) citations in 2014

[Shapiro Delay Measurement of A Two Solar Mass Neutron Star](#)
[Paul Demorest \(NRAO, Charlottesville\)](#), [Tim Pennucci \(Virginia U., Astron. Dept.\)](#), [Scott Ransom \(NRAO, Charlottesville\)](#), [Mallory Roberts \(Eureka Sci.\)](#), [Jason Hessels \(ASTRON, Dwingeloo & Amsterdam U., Astron. Inst.\)](#). Oct 2010.
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[A Massive Pulsar in a Compact Relativistic Binary](#)
[John Antoniadis](#), [Paulo C.C. Freire](#), [Norbert Wex \(Bonn, Max Planck Inst., Radioastron.\)](#), [Thomas M. Tauris \(Bonn, Max](#)

[Planck Inst., Radioastron. & Argelander Inst. Astron.](#)), [Ryan S. Lynch \(McGill U.\)](#), [Marten H. van Kerkwijk \(Toronto U.\)](#), [Michael Kramer \(Manchester U. & Bonn, Max Planck Inst., Radioastron.\)](#), [Cees Bassa \(Manchester U.\)](#), [Vik S. Dhillon \(Sheffield U.\)](#), [Thomas Driebe \(DLR, Oberpfaffenhofen\) et al.](#). Apr 25, 2013. 54 pp.
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7. Modified gravity

[269](#) citations in 2014

[Modified Gravity and Cosmology](#)

[Timothy Clifton](#), [Pedro G. Ferreira \(Oxford U.\)](#), [Antonio Padilla](#), [Constantinos Skordis \(Nottingham U.\)](#). Jun 2011. 300 pp.
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8. Simulating the Universe

[267](#) citations in 2014

[Simulating the joint evolution of quasars, galaxies and their large-scale distribution](#)

[Volker Springel](#), [Simon D.M. White](#), [Adrian Jenkins](#), [Carlos S. Frenk](#), [Naoki Yoshida](#), [Liang Gao](#), [Julio Navarro](#), [Robert Thacker](#), [Darren Croton](#), [John Helly et al.](#). Apr 2005. 42 pp.
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[146](#) citations in 2014

[The Aquarius Project: the subhalos of galactic halos](#)

[Volker Springel](#), [Jie Wang](#), [Mark Vogelsberger \(Garching, Max Planck Inst.\)](#), [Aaron Ludlow \(Victoria U.\)](#), [Adrian Jenkins \(Durham U.\)](#), [Amina Helmi \(Kapteyn Astron. Inst., Groningen\)](#), [Julio F. Navarro \(Massachusetts U., FCRAO & Victoria U.\)](#), [Carlos S. Frenk \(Durham U.\)](#), [Simon D.M. White \(Garching, Max Planck Inst.\)](#). Sep 2008. 30 pp.
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9. Baryon Acoustic Oscillation

[216](#) citations in 2014

[Detection of the baryon acoustic peak in the large-scale correlation function of SDSS luminous red galaxies](#)

[SDSS Collaboration \(Daniel J. Eisenstein \(Arizona U.\) et al.\)](#). Jan 2005.
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e-Print: [astro-ph/0501171](#) | [PDF](#)

10. Star formation

[215](#) citations in 2014

[Star formation in galaxies along the Hubble sequence](#)

[Robert C. Kennicutt, Jr. \(Arizona U., Astron. Dept. - Steward Observ.\)](#). Jul 1998. 41 pp.
Published in **Ann.Rev.Astron.Astrophys.** **36** (1998) 189-231
e-Print: [astro-ph/9807187](#) | [PDF](#)

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[Robert C. Kennicutt, Jr.](#) ([Arizona U., Astron. Dept. - Steward Observ.](#)). Dec 1997. 23 pp.

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[The Average Star Formation Histories of Galaxies in Dark Matter Halos from \$z=0-8\$](#)

[Peter S. Behroozi](#), [Risa H. Wechsler](#), [Charlie Conroy](#). Jul 2012. 36 pp.

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11. Cooling flows

[196](#) citations in 2014

[The Many lives of AGN: Cooling flows, black holes and the luminosities and colours of galaxies](#)

[Darren J. Croton](#), [Volker Springel](#), [Simon D.M. White](#), [G. De Lucia](#) ([Garching, Max Planck Inst.](#)), [C.S. Frenk](#) ([Durham U.](#)),

[L. Gao](#) ([Garching, Max Planck Inst.](#)), [A. Jenkins](#) ([Durham U.](#)), [G. Kauffmann](#) ([Garching, Max Planck Inst.](#)), [J.F. Navarro](#)

([Victoria U.](#)), [N. Yoshida](#) ([Nagoya U.](#)). Aug 2005. 21 pp.

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e-Print: [astro-ph/0508046](#) | [PDF](#)

12. Positron anomaly

[181](#) citations in 2014

[An anomalous positron abundance in cosmic rays with energies 1.5-100 GeV](#)

[PAMELA](#) Collaboration ([Oscar Adriani](#) ([Florence U.](#) & [INFN, Florence](#)) *et al.*). Oct 2008. 20 pp.

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e-Print: [arXiv:0810.4995](#) [[astro-ph](#)] | [PDF](#)

13. Missing satellite problem

[155](#) citations in 2014

[Where are the missing Galactic satellites?](#)

[Anatoly A. Klypin](#), [Andrey V. Kravtsov](#), [Octavio Valenzuela](#) ([New Mexico State U.](#)), [Francisco Prada](#) ([Observ. Astron. Natl., Ensenada](#)). Jan 1999. 10 pp.

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14. High-energy neutrino detections

[142](#) citations in 2014

[Evidence for High-Energy Extraterrestrial Neutrinos at the IceCube Detector](#)

[IceCube](#) Collaboration ([M.G. Aartsen](#) ([Adelaide U.](#)) *et al.*). Nov 20, 2013. 38 pp.

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[120](#) citations in 2014

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15. Anomalous X-ray line detection – sterile neutrino dark matter

[139](#) citations in 2014

[Detection of An Unidentified Emission Line in the Stacked X-ray spectrum of Galaxy Clusters](#)

[Esra Bulbul](#) (Harvard-Smithsonian Ctr. Astrophys. & NASA, Goddard & CRESST, Greenbelt), [Maxim Markevitch](#) (NASA, Goddard), [Adam Foster](#), [Randall K. Smith](#) (Harvard-Smithsonian Ctr. Astrophys.), [Michael Loewenstein](#) (NASA, Goddard & CRESST, Greenbelt & Maryland U.), [Scott W. Randall](#) (Harvard-Smithsonian Ctr. Astrophys.). Feb 10, 2014. 23 pp.

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16. Quasar feedback

[137](#) citations in 2014

[Energy input from quasars regulates the growth and activity of black holes and their host galaxies](#)

[Tiziana Di Matteo](#), [Volker Springel](#) (Garching, Max Planck Inst.), [Lars Hernquist](#) (Harvard U.). Feb 2005. 15 pp.

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[A Fundamental relation between supermassive black holes and their host galaxies](#)

[Laura Ferrarese](#) (UCLA), [David Merritt](#) (Rutgers U., Piscataway). Jun 2000.

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