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Neta A. Bahcall is the Eugene Higgins Professor of Astrophysics at Princeton University. She is Director of the Undergraduate Program in Astrophysics, past Director of the Council on Science and Technology of Princeton University, and is a member of the US National Academy of Sciences and the American Academy of Arts and Sciences. Bahcall' research interests are:

- Observational Cosmology
- Dark Matter and the Mass Density of the Universe
- Dark Energy
- Tracing the Cosmic Distribution of Dark Matter, Baryons, Stars, and Light
- Large-Scale Structure of the Universe; Clusters of Galaxies
- Formation and Evolution of Structure
- Quasars and Their Environment; Supermassive Black-Holes

Bahcall's work focuses on addressing questions such as: What is the large-scale structure of our Universe? How did structure form and evolve? How much dark matter exists in the Universe and where is it located? What is the nature of the mysterious dark energy? What is the fate of our Universe and its expansion? Bahcall uses different methods and a variety of tracers to answer these questions, including galaxies, clusters of galaxies, superclusters, and quasars. She combines observational data from large-scale surveys (such as the Sloan Digital Sky Survey and others) and other observations to determine the large-scale structure of the universe and its properties and compare it with those expected from cosmological simulations. Bahcall and collaborators determination of properties such as the cluster correlation function, the cluster mass function and its evolution with redshift, the mass-to-light function from galaxies to superclusters and from small to large cosmic scales, the geometrical shape of clusters and of large-scale structure have provided powerful constraints on cosmology including one of the first determinations of the mass-density of the Universe and the amplitude of mass fluctuations. Their results showing a sub-critical mass-density, with only $\sim 25\%$ of the mass needed to halt the cosmic expansion, has been nicely confirmed by more recent observations and is part of the current standard LCDM cosmology.

Bahcall works closely with students and postdoctoral fellows; their work is summarized in over 300 scientific publications. Bahcall is a member of the US National Academy of Sciences, the American Academy of Arts and Sciences, Distinguished Research Chair at the Perimeter Institute for Theoretical Physics, Editorial Board Member of the Publications of the National Academy of Sciences (PNAS), Chair of the Astronomy section of the National Academy of Sciences, and past Vice-President and Councilor of the American Astronomical Society. She is recipient of the Payne-Gasposkin Award, the Bennet-McWilliams Award, an Honorary Doctor of Science Degree - OSU, Century Lecturer of the AAS, and member of various NASA, NSF, NAS, and Congressional Science committees.

Bahcall was born in Israel. She received her PhD from Tel Aviv University, working in Nuclear Astrophysics under the direction of Prof. William A. Fowler of Caltech. After receiving her PhD Bahcall moved to Princeton University. She has served as the first Head of the Science Program Selection Office and Chief of the General Observer Branch at the Hubble Space Telescope Science Institute in Baltimore. Neta Bahcall married John N. Bahcall in 1966; they have three children: Safi, Dan, and Orli.

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Research Interests

- Observational Cosmology
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- Quasars and Their Environment
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Education

- Ph.D. Astrophysics: Tel Aviv University, Israel; 1970; Nuclear Astrophysics, Advisor: Prof. W. A. Fowler (Caltech)
- M.S. Physics: Weizmann Institute of Science, Israel, 1965
- B.S. Physics/Mathematics: Hebrew University, Israel, 1963

Positions Held

- 1989 – present** **Department of Astrophysical Sciences, Princeton University**
Professor of Astrophysical Sciences
Eugene Higgins Professor of Astrophysics (2007- Current)
Director of Undergraduate Program (1993 - Current)
Director, Council on Science and Technology, Princeton University
(2000-2008)
- 1983 – 1989** **Space Telescope Science Institute**
Head, Science Program Selection Office
Chief, General Observer Support Branch
- 1971 – 1983** **Department of Astrophysical Sciences, Princeton University**
Senior Research Astronomer; Research Astronomer; Research Associate
- 1970 – 1971** **Physics Department, California Institute of Technology**
Research Fellow

Awards & Honors

- Chair, Astronomy Section, **National Academy of Sciences** (2016 – 2019)
- Elected Fellow of the **American Academy of Arts and Sciences** (2014)
- The **2014 Bennett-McWilliams** Distinguished Lecture, Carnegie Mellon University
- The **Cecilia Payne-Gaposkin Prize, Harvard University** (2012/13)
- The **Neta Bahcall Asteroid** (2012) [<http://ssd.jpl.nasa.gov/sbdb.cgi?sstr=137166>]
- **Distinguished Research Chair, Perimeter Institute for Theoretical Physics**, Ontario, Canada (2009 - 2012)
- **Honorary Degree, Doctor of Science, The Ohio State University** (2006)
- **Frontiers of Astronomy Lecturer, CWRU** (2009)
- **Evnin Lecturer, Princeton University** (2008)
- **William T. Patten Distinguished Lecturer, Indiana University** (2007)
- **Distinguished Caroline Herschel Visitor, Hubble Space Telescope Science Institute** (2007)
- **Sackler Scholar, Tel-Aviv University** (2006)
- **Emilio Segre Distinguished Lecturer** (2006)
- Member, **National Academy of Sciences, USA** (elected 1997)
- **Vice-President, American Astronomical Society** (1995-1998)
- **Century Lecturer of the American Astronomical Society** (1999-present)
- **Strum Lecturer, Wesleyan University** (2002)
- **Benjamin Dean Lecturer, California Academy of Sciences** (2001)
- **Capital Science Lecturer, Carnegie Institution Washington, D.C.** (2000/01)
- **Invited Centennial Paper** (Astrophysical Journal Centennial Issue) (1999)

- **Centennial Lecture**, American Astronomical Society (HAD) (1999)
- **Chancellor's Distinguished Lecturer**, LSU (1999)
- **Nobel Lecturer, Nobel Symposium**, Stockholm (1998)
- **Merle Kingsley Distinguished Fellow**, Caltech (1995)
- **Director, AURA Board** (1990-95)
- **Tinsley Visiting Professorship**, University of Texas (1988)
- **Councilor**, American Astronomical Society (1987-1990)

Selected Recent Activities

- **NASA's James Webb Space Telescope Advisory Committee** (2009 - Current)
- **Chair, National Academy of Sciences, Astronomy section**, (2016 – 2019)
- **Chair, Henry Draper Medal selection committee, National Academy of Sciences** (2016-17)
- **Editorial Board, Publications of the National Academy of Sciences** (2009 - Current)
- **National Academy of Sciences, Nominating Committee** (2010 – 2012)
- **National Academy of Sciences, various committees** (2010 – Current: PNAS Cozzarelli Award; Watson Award; Draper Medal; Data-Share Committee; Publication Committee; Class Membership Committee)
- **National Judge**, Siemens Science Competition (2011)
- **2010 Decadal Survey in Astronomy**, Galaxies Across Cosmic Time Science Panel (2009-10)
- **Chair, Hubble Space Telescope TAC** (2010)
- **Director, Undergraduate Program in Astrophysics**, Princeton University (1993 - Current)

- **Faculty Adviser, Faculty Fellow**, Forbes College, Princeton University (2009 - Current)
Faculty Fellow, Center for Jewish Life, Princeton University (1990 – 2009)
Board Member, Center for Jewish Life, Princeton University (2007 – 2010)
- **Director, Council on Science and Technology** of Princeton University (2000 - 2008)
- **Director**, Teaching Postdoctoral Fellowship Program in Science & Engineering, Princeton University (2000 - 2008)
- **National Astronomy and Astrophysics Advisory Committee** (2003-2007)
- **Chair, Oversight Board, NASA's SIRTf Science Center** (1998-2001)
- **Chair, American Astronomical Society Century Lecture Program** (1999- 2004)
- **Member, Space Telescope Institute Council** (1993-1997)
- **Member, US National Committee to IAU** (1998-2004)
- **AURA Member Representative** (Assoc. Universities Research in Astronomy) (1995-2001)
- **Chair, Scientific Advisory Committee, Sloan Digital Sky Survey** (1990-1995)
- **Chair, Hubble Space Telescope Time Allocation Committee** (1994)
- **American Institute of Physics Committee on International Relations** (1990-1993)
- **AAS Membership Committee** (1987-1990)
- **Chair, AAS Committee on the Status of Women in Astronomy** (1983)

Publications

1. "Lifetime Measurements of Some Rotational Levels by a New Recoil Method", (with D. Ashery, G. Goldring, A. Sprinzak and Y. Wolfson), Nuclear Physics, 77, 65 (1966).
2. "Lifetime Measurements of Some Rotational Levels by a New Recoil Method. II", (with D. Ashery, G. Goldring, A. Sprinzak and Y. Wolfson), Nuclear Physics, A101, 31 (1967).
3. "Solar Neutrinos and Low Energy Nuclear Cross-Sections", (with J.N. Bahcall, W.A. Fowler and G. Shaviv), Physics Letters, 26B, 359 (1968).
4. "Present Status of the Theoretical Predictions for the 37C1 Solar-Neutrino Experiment", (with J.N. Bahcall and G. Shaviv), Physical Review Letters, 20, 1209 (1968).
5. "Mixing in the Sun and Neutrino Fluxes", (with J.N. Bahcall and R.K. Ulrich), Astrophysical Letters, 2, 91 (1968).
6. "Sensitivity of the Solar Neutrino Fluxes", (with J.N. Bahcall and R.K. Ulrich), ApJ, 156, 559 (1969).
7. "The Effect of Excited Nuclear States on Stellar Reaction Rates", (with W.A. Fowler), ApJ, 157, 645 (1969).
8. "Endoergic (p,n) and (a,n) and Their Reverse Reaction Rates", (with W.A. Fowler), ApJ, 157, 659 (1969).
9. "Nuclear Partition Functions for Stellar Reaction Rates", (with W.A. Fowler), ApJ, 161, 119 (1970).
10. "On the Galaxies in the Direction of TON256 and B264", (with J.N. Bahcall), Publications of the Astronomical Society of the Pacific, 82, 721 (1970).
11. "Galaxies in the Direction of QSOs with Small Redshifts", (with J.N. Bahcall), Publications of the Astronomical Society of the Pacific, 82, 1276 (1970).
12. "The Ionization Structure of a Nebula Photoionized by a Flat Spectrum", (with J.N. Bahcall and B.Z. Kozlovsky), Astronomy and Astrophysics, 13, 1 (1971).
13. "Relative Correlation of Large and Small Redshift QSOs with Clusters of Galaxies", (with J.N. Bahcall and G. Burbidge), ApJL, 166, L77 (1971).
14. "The Distribution of Galaxies in the Ursa Major II Cluster", AJ, 76, 995 (1971).

15. "Are Quasars Associated with Bright Galaxies?", (with J.N. Bahcall and C.F. McKee), *Astrophysical Letters*, 10, 147 (1972).
16. "The Distribution of Galaxies in the Cluster A31", *AJ*, 77, 550 (1972).
17. "Core Radii of Clusters of Galaxies at Different Redshifts", *ApJ*, 180, 699 (1972).
18. "The Period and Light Curve of HZ Herculis", (with J.N. Bahcall), *ApJL*, 178, L1 (1972).
19. "Observations of QSOs in the Direction of Clusters of Galaxies", (with M. Schmidt and J.N. Bahcall), *ApJ*, 183, 777 (1973).
20. "Structure of the Central Region of the Coma Cluster", *ApJ*, 183, 783 (1973).
21. "Optical Observations of HZ Herculis", Invited talk at the Sixth Texas Symposium on Relativistic Astrophysics, New York, December 1972; published in the *Annals of the New York Academy of Sciences*, 224, 178 (1973).
22. "The Galaxy Distribution in the Cluster A2199", *ApJ*, 186, 11 (1973).
23. "A Steady Energy Source in Her X1?", (with Y. Avni, J.N. Bahcall, P.C. Joss, F.K. Lamb, C.J. Pethick and D. Pines), *Nature*, 246, 36 (1973).
24. "The Perseus Cluster: Galaxy Distribution, Anisotropy, and the M/L Ratio", *ApJ*, 187, 439 (1974).
25. "Optical Properties of Binary X-ray Sources", Invited talk at the 16th Solvay Conference on Physics, Astrophysics and Gravitation, (1974).
26. "Near Infrared Observations of Cygnus X-3", (with J.N. Bahcall), *Nature*, 247, 446 (1974).
27. "Optical Properties of X-ray Clusters of Galaxies", *ApJ*, 193, 529 (1974).
28. "Positional Agreement between 3U1706+32 and the Cluster of Galaxies A2241", *Nature*, 252, 661 (1974).
29. "Optical and Near Infrared Observations of Seven Fields Containing X-ray Sources", (with J.N. Bahcall), *Proceedings of the International Conference on X-rays in Space*, Calgary, Alberta, Canada (1975).
30. "Core Radii and Central Densities of Fifteen Rich Clusters of Galaxies", *ApJ*, 198, 249 (1975).

31. "Extra Galactic X-ray Sources", Proceedings of the International Conference on X-rays in Space, August 1974 Calgary, Alberta, Canada (1975).
32. "Further Optical Observations of HZ Herculis", (with J.N. Bahcall, T. Herczeg, P. Joss, E. Leibowitz, A. Segalovitz, S. Stolero, M. Veron, P. Veron, P. Wehinger, D. Weistrop and S. Wycoff), Publications of the Astronomical Society of the Pacific, 87, 141 (1975).
33. "Properties of the Extra Galactic X-ray Sources", Seventh Texas Symposium on Relativistic Astrophysics, Dallas, Texas, December 1974; published in the Annals of the New York Academy of Sciences, 262, 361 (1975).
34. "Optical Studies of Ten High-Galactic Latitude X-ray Sources", (with J.N. Bahcall, M. Schmidt and S. Murray), ApJL, 199, L9 (1975).
35. "The Unidentified High Galactic Latitude Sources: Bright Galaxies or Rich Clusters", (with J.N. Bahcall), ApJL, 199, L89 (1975).
36. "The Star Distribution in M15", (with D. Weistrop and J.N. Bahcall), Astrophysical Letters, 16, 159 (1975).
37. "Optical Structure of the X-ray Globular Star Cluster NGC6624", ApJL, 204, L83 (1976).
38. "Statistical Simulation of Clusters of Galaxies", (with Y. Avni), ApJ, 209, 16 (1976).
39. "Optical Structure of the X-ray Globular Clusters NGC6440 and NGC644", (with M. Hausman), ApJL, 207, L181 (1976).
40. "Radio-Optical Candidates for the High-Latitude X-ray Sources 3U1555+27 and 3U1809+50", (with D. Harris and R. Strom), ApJL, 209, L17 (1976).
41. "Redshift of the Candidate X-ray Cluster of Galaxies, A2241", (with H. Spinrad), Publications of the Astronomical Society of the Pacific, 88, 660 (1976).
42. "Density Profiles in Clusters of Galaxies", Highlights of Astronomy, 4, Part I., 247 (1976).
43. "The Structure of Eight Globular Star Clusters", (with M. Hausman), ApJ, 213, 93 (1977).
44. "Radio and Optical Observations of Five Unidentified X-ray Sources at High Latitudes", (with D. Harris and R. Strom), Astronomy and Astrophysics, 60, 27 (1977).
45. "Clusters of Galaxies", Annual Review of Astronomy and Astrophysics, 15, 505 (1977).

46. "The Central Region of the X-ray Globular Cluster NGC 1851", (with B. Lasker and W. Wamsteker), *ApJL*, 213, L105 (1977).
47. "The Redshift and Optical Properties of the Cluster A478", (with W. Sargent), *ApJL*, 217, L19 (1977).
48. "X-ray Clusters of Galaxies: Correlation with Optical Morphology and Galaxy Density", *ApJL*, 217, L77 (1977).
49. "X-ray Clusters of Galaxies: Correlation of X-ray Luminosity with Galactic Content", *ApJL*, 218, L93 (1977).
50. "Large Scale Structure in the Universe", Rehovot, (1978).
51. "The Luminosity Function of Galaxy Systems: From Single Galaxies and Small Groups to Rich Clusters", *ApJ*, 232, 689 (1979).
52. "Brightness, Density, and Color Profiles of Three Globular Clusters: NGC6440, 6541, and 7099", (with T. Williams), *ApJ*, 232, 754 (1979).
53. "The X-ray Luminosity Function of Clusters of Galaxies: Predictions from a Thermal Bremsstrahlung Model", *ApJL*, 232, L83 (1979).
54. "Clusters of Galaxies", *Highlights of Astronomy*, 5, 699 (1980).
55. "The Optical and X-ray Luminosity Functions of Clusters of Galaxies", *Objects of High Redshift*, IAU Symposium, No. 92, 229 (1980).
56. "Optical Properties of Morgan's Poor Clusters", *ApJL*, 238, L117 (1980).
57. "The Relation Between Velocity Dispersion and Central Galaxy Density in Clusters of Galaxies", *ApJ*, 247, 787 (1981).
58. "Large-Scale Superclusters Surrounding the Giant Galaxy Void in Bootes", (with R. Soneira), *ApJL*, 258, L17 (1982).
59. "A ~ 300 Mpc Void of Rich Clusters of Galaxies?", (with R. Soneira), *ApJ*, 262, 419 (1982).
60. "The Spatial Correlation Function of Rich Clusters of Galaxies", (with R. Soneira), *ApJ*, 270, 20 (1983).
61. "A Supercluster Catalog", (with R. Soneira), *ApJ*, 277, 27 (1984).

62. "Superclusters and the Large-Scale Structure of the Universe", *Advances in Space Research*, 3, 367 (1984).
63. "X-ray Emission from Stephan's Quintet and Other Compact Groups", (with D. Harris and H. Rood), *ApJL*, 284, L29 (1984).
64. "Superclustering of Galaxy Clusters", *Annals of the New York Academy of Sciences*, 470, 108 (1986).
65. "The Hubble Space Telescope", *Annals of the New York Academy of Sciences*, 470, 331 (1986).
66. "Are Superclusters Correlated on a Very Large Scale?", (with W. Burgett), *ApJL*, 300, L35 (1986).
67. "The Difference Between the Galaxy and Cluster Correlation Functions: A Manifestation of Tails of Galaxy Clusters", *ApJL*, 302, L41 (1986).
68. "Quasar Groups: Multiple Quasars for Multiple Images", (with J.N. Bahcall and D. Schneider), *Nature*, 323, 515 (1986).
69. "Peculiar Velocity and Geometrical Elongation of Large Scale Structures", (with R. Soneira and W. Burgett), *ApJ*, 311, 15-24 (1986).
70. "Peculiar Velocities on Large Scales", *Comments on Astrophysics*, 11, 6, 283 (1987).
71. "Large-Scale Structure in the Universe: Spatial Distribution and Peculiar Velocities", *Observational Cosmology, Proceedings of IAU Symposium 124*, eds. A. Hewitt, G. Burbidge, L.Z. Fang, August 1986, Peking, China (1987).
72. "Superclustering and Motion of Galaxy Clusters", *The Structure of the Universe, Proceedings of IAU Symposium 130*, eds. J. Audouze, A. Szalay, June 1987, Budapest, Hungary (1987).
73. "Large-Scale Structure in the Universe Indicated by Galaxy Clusters", *Annual Review of Astronomy and Astrophysics*, 26, 631 (1988).
74. "Large-Scale Structure and Motion in the Universe: A Vatican Study Week", eds. V. Rubin and G. Coyne, 79, Princeton University Press, (1988).
75. "The Correlation Function of Southern Clusters", (with D.J. Batuski and R.P. Olowin), *ApJL*, 333, L13 (1988).
76. "The Science Program of the Hubble Space Telescope", *Highlights of Astronomy*, 8, 435 (1989).

77. "The Distribution of Clusters in the Southern ACO Catalog", (with D.J. Batuski, R.P. Olowin, and J.O. Burns), *ApJ*, 341, 599 (1989).
78. "Is the Universe Filled with Bubbles?", (with M. Henriksen and E. Smith), *ApJL*, 346, L45 (1989).
79. "The Origin of Large-Scale Periodicity", in *After the First Three Minutes*, USRA, AIP Conference Proceeding, 222, 276 (1990).
80. "Clustering of Galaxies: Fractal or Homogeneous Infrastructure", (with D. Calzetti, M. Giavalisco, R. Ruffini, and S. Taraglio), *Astronomy and Astrophysics*, 245, 1 (1991).
81. "Quasar Superclustering", (with A. Chokshi), *ASP Conf. Series*, 21, 281, (1991).
82. "Superclusters and Pencil-Beam Surveys: The Origin of Large-Scale Periodicity", *ApJ*, 376, 43 (1991).
83. "The Non-Proprietary Snapshot Survey: A Search for Gravitationally Lensed Quasars Using the HST Planetary Camera", (with D. Maoz, J. Bahcall, R. Doxsey, D. Schneider, O. Lahav, B. Yanny), *The First Year of HST Observations*, ed. A. Kinney and C. Blades (Baltimore, STScI) p.200 (1991).
84. "The Origin of Quasar Correlations", (with A. Chokshi), *ApJL*, 380, L9 (1991).
85. "The Snapshot Survey: A Search for Gravitationally Lensed Quasars with the Hubble Space Telescope", (with D. Maoz, D. Schneider, J. Bahcall, B. Yanny, O. Lahav, R. Doxsey), *ApJ*, 387, 56 (1992).
86. "The Clustering of Radio-Galaxies", (with A.Chokshi), *ApJL*, 385, L33 (1992).
87. "The Distribution and Properties of Superclusters", in *Clusters and Superclusters of Galaxies*, NATO Advanced Study Institute, Kluwer Academic Publishers, ed. A.aC. Fabian, Cambridge, England, p.275 (1992).
88. "The Cluster Correlation Function: Consistent Results from an Automated Survey", (with M. West), *ApJ*, 392, 419 (1992).
89. "A Gravitational Lens Candidate Discovered with the Hubble Space Telescope", (with D. Maoz, J. Bahcall, D. Schneider, R. Doxsey, A. Filippenko, W.M. Goss, O. Lahav, B. Yanny), *ApJL*, 386, L1 (1992).
90. "A Unified Picture of Large-Scale Structure", *Highlights of Astronomy*, 9, 671-680, Kluwer Academic Publishers, ed. J. Bergeron (1992).

91. "Gravitational Lensing of Quasars as seen by the Hubble Space Telescope Snapshot Survey", (with D. Maoz, J. Bahcall, R. Doxsey, D. Schneider, O. Lahav, B. Yanny), *ApJ*, 394, 51 (1992).
92. "Accurate Positions and Finding Charts for 528 High-Redshifts Luminous Quasars", (with D. Schneider, J. Bahcall, D. Saxe, R. Doxsey, D. Golombek, J. Kriss, M. McMaster, M. Meakes, O. Lahav), *Publications of the Astronomical Society of the Pacific*, 104, 678 (1992).
93. "Clusters of Galaxies and CDM: A Low-Density Unbiased Universe?", (with R. Cen), *ApJL*, 398, L81 (1992).
94. "The Mass-Function of Clusters of Galaxies", (with R. Cen), *ApJL*, 407, L49 (1993).
95. "The Hubble Space Telescope Snapshot Survey III. Further Observations in Search of Gravitationally Lensed Quasars", (with D. Maoz, J. Bahcall, R. Doxsey, D. Schneider, O. Lahav, B. Yanny), *ApJ*, 402, 69 (1993).
96. "Cosmological Constant, COBE CMB Anisotropy and Large Scale Clustering", (with L. Kofman and N. Gnedin), *ApJ*, 413, 1 (1993).
97. "The HST Snapshot Survey IV. A Summary of the Search for Gravitationally Lensed Quasars", (with D. Maoz, J. Bahcall, R. Doxsey, D. Schneider, O. Lahav, B. Yanny), *ApJ*, 409, 28 (1993).
98. "Clusters, Superclusters and Large-Scale Structure - A Consistent Picture", *Colloquium on Physical Cosmology Proc. National Academy of Sciences, USA*, 90, 4828 (1993).
99. "Redshift Space Clustering and CDM", (with R. Cen and M. Gramann), *ApJL*, 408, L77 (1993).
100. "Clustering of Galaxies in Redshift Space: The Power-Spectrum and Correlation Function", (with M. Gramann and R. Cen), *ApJ*, 419, 440 (1993).
101. "The Relation Between Velocity Dispersion and Temperature in Clusters: Limiting the Velocity Bias", (with Lori Lubin), *ApJL*, 415, L17 (1993).
102. "Resolving the b-Discrepancy for Clusters of Galaxies", (with Lori Lubin), *ApJ*, 426, 513 (1994).
103. "The Correlation Function of Flux-Limited X-ray Clusters", (with R. Cen), *ApJL*, 426, L15 (1994).
104. "Clusters, Superclusters, and the Large Scale Structure", in *Evolution of the Universe and Its Observational Quest, Proceedings of the Yamada Conference 23*, ed. K. Sato, (Universal Academic Press: Tokyo, Japan), p.269 (1994).

105. "Probing the Large-Scale Velocity Field with Clusters of Galaxies", (with R. Cen and M. Gramann), *ApJL*, 430, L13 (1994).
106. "The Motions of Clusters and Groups of Galaxies", (with Mirt Gramann and Renyue Cen), *ApJ*, 436, 23 (1994).
107. "Dark Matter in Clusters and the Mass-Density of the Universe", in *Sources of Dark Matter in the Universe*, ed. D. Cline, World Scientific, p.41 (1994).
108. "Velocity Correlations of Galaxy Clusters", (with R. Cen and M. Gramann), *ApJL*, 437, L51 (1994).
109. "Large-Scale Motions in the Universe: Using Clusters of Galaxies as Tracers", (with M. Gramann, R. Cen, J.R. Gott), *ApJ*, 441, 449 (1995).
110. "Where is the Dark Matter?", (with Lori Lubin and Victoria Dorman), *ApJL*, 447, L81 (1995).
111. "Clustering and Large-Scale Structure with the Sloan Digital Sky Survey", *Publications of the Astronomical Society of the Pacific*, 107, 790 (1995).
112. "Cosmology with Clusters of Galaxies", in *Large Scale Structure in the Universe 11th Potsdam Cosmology Workshop*, World Scientific, p.209 (1995).
113. "Rating Cosmological Models", *Summary of the 11th Potsdam Cosmology Workshop on Large Scale Structure in the Universe*, World Scientific, p. 371(1995).
114. "Dark Matter in Clusters of Galaxies", in "Dark Matter", the 5th Astrophysics Maryland Conference, ed. S. Holt & C. Bennett, *AIP*, 336, 201 (1995).
115. "Clusters and Large Scale Structure", 17th Texas Symposium (Munich, 1994), *Annals of the New York Academy of Sciences*, 759, 636 (1995).
116. "The Baryon Fraction and Velocity-Temperature Relation in Galaxy Clusters: Models Versus Observations", (with R. Cen, L. Lubin, J. Ostriker), *ApJ*, 460, 10 (1996).
117. "The Peculiar Velocity function of Galaxy Clusters", (N. Bahcall and Siang Peng Oh), *ApJL*, 462, L49 (1996).
118. "Large Scale Structure in the Universe", in *Unsolved Problems in Astrophysics*, eds., J.N. Bahcall & J.P. Ostriker (Princeton University Press), p.61 (1997). (astro-ph/9612046)
119. "Dark Matter", in "Critical Dialogues in Cosmology", ed. N. Turok, World Scientific, p. 221 (1997). (astro-ph/9611080)

120. "Constraining Omega with Cluster Evolution", (N. Bahcall, X. Fan, and R. Cen), ApJL, 485, L53 (1997).
121. "Determining the Amplitude of Mass Fluctuations in the Universe", (X. Fan, N. Bahcall, and R. Cen), ApJL, 490, L123 (1997).
122. "The Most Massive Distant Clusters: Determining Ω_m and σ_8 ", (N. Bahcall and X. Fan), ApJ, 504, 1 (1998).
123. "Clusters and Superclusters of Galaxies", in Formation of Structure in the Universe, eds. J.P. Ostriker and A. Dekel (Cambridge University Press, Cambridge), p. 135 (1998). (astro-ph/9611148)
124. "Large Scale Structure of the Universe", in New Horizons from Multi-Wavelength Sky Surveys, Proceedings IAU179 Conference, Baltimore, MD, ed. B.J. McLean et al., Kluwer Academic Press, p.317 (1998). (astro-ph/9611116)
125. "Tracing the Universe with Clusters of Galaxies", in Large Scale Structure: Tracks and Traces, 12th Potsdam Cosmology Workshop, eds. V. Muller et al., World Scientific, p.137 (1998). (astro-ph/9711062)
126. "A Lightweight Universe?", (N. Bahcall and X. Fan), National Academy of Sciences, 95, 5956 (1998).
127. "A Catalog of Color Based Redshift Estimates for $z > 4$ Galaxies in the Hubble Deep Field", (Y. Wang, N. Bahcall, E. Turner), AJ, 116, 2081 (1998).
128. "Determining Ω_m and σ_8 with Clusters of Galaxies", in Wide Field Surveys in Cosmology, IAP98, 14th IA Astrophysics Colloquium, eds. S. Colombi, Y. Mellier and B. Raban, Editions Frontieres, p. 231 (1998).
129. "An Automated Cluster Finder: The Adaptive Matched Filter Method", (J. Kepner, X. Fan, N. Bahcall, J.E. Gunn, R. Lupton), ApJ, 517, 78 (1999).
130. "Determining Cosmological Parameters from Cluster Evolution", in Evolution of Large Scale Structure, MPA/ESO Cosmology Conference, eds. A.J. Banday, R.K. Sheth and L.N. da Costa, Print Partners, Ipskamp, The Netherlands, p. 291 (1999).
131. "The Distribution of Rich Clusters of Galaxies", ApJ Centennial Issue, 525, 873 (1999).
132. "High Redshift Quasars Found in the Sloan Digital Sky Survey Commissioning Data", (with Fan et al.), AJ, 118, 1 (1999).
133. "The Cosmic Triangle: Revealing the State of the Universe", (N.A. Bahcall, J.P. Ostriker, S. Perlmutter, and P. Steinhardt), Science, 284, 1481 (1999).

134. "Clusters of Galaxies: Review", 19th Texas Symposium on Relativistic Astrophysics and Cosmology, Paris, Dec. 1998, Nuclear Physics B, Elsevier Science, ed. J. Ferlet (1999).
135. "The Discovery of a High Redshift Quasar without Emission Lines from the Sloan Digital Sky Survey", (with Fan et al.), *ApJL*, 526, L57 (1999).
136. "Large Scale Structure and the Mass Density of the Universe", in *New Worlds in Astroparticle Physics*, eds. A. Mourao et al., World Scientific, p. 77 (1999).
137. "Clusters and Groups of Galaxies", Chapter in the book *Allen's Astrophysical Quantities*, p. 613, ed. A. Cox, AIP Press, Springer-Verlag New York Inc. (1999).
138. "A Model-Independent Photometric Redshift Estimator", (Y. Wang, N.A. Bahcall and E.L. Turner), *ASP Conf. Series*, eds. R. Weynman et al., 191, 25 (1999). (astro-ph/9906256)
139. "Cosmology with Clusters of Galaxies", *Nobel Symposium on Particle Physics and the Universe*, *Physica Scripta*, 60, 8, eds. L. Bergstrom, P. Carlson & C. Fransson (1999).
140. "Finding Clusters of Galaxies in the Sloan Digital Sky Survey using Vorono Tessellation", (Kim, S.J., M. Strauss, N.A. Bahcall, et al.), *ASP Conf. Series*, eds. A. Mazure et al., 200, 422, (2000). (astro-ph/9912302)
141. "High Redshift Quasars found in the SDSS Commissioning Data II: The Spring Equatorial Stripe", (with Fan et al.), *AJ*, 119, 1 (2000).
142. "Weak lensing of Galaxy Halos with SDSS Commissioning Data", (P. Fischer et al.), *AJ*, 120, 1198 (2000). (astro-ph/9912119)
143. "The Mass-to-Light Function: Antibias and the Mass Density of the Universe", (N.A. Bahcall, R. Cen, R. Dave, J.P. Ostriker, Q.Yu), *ApJ*, 541, 1 (2000). (astro-ph/0002310)
144. "Magnification Bias from Lensing by Large-Scale Structure", (Jain et al.), *SDSS*, 36, (2000).
145. "Paper of the Century: The Distribution of Rich Clusters of Galaxies", Invited review, *HAD*, *AAS January, Bulletin of the American Astronomical Society*, 31, 130 (2000).
146. "The Discovery of a Luminous $z = 5.8$ Quasar from the Sloan Digital Sky Survey", (X. Fan et al.), *AJ*, 120, 1167 (2000).
147. "The Sloan Digital Sky Survey: Technical Summary", (York et al.), *AJ*, 120, 1579 (2000).
148. "Clusters and Cosmology", *Physics Reports*, 333, 233 (2000).

149. "High Redshift Quasars in the Sloan Digital Sky Survey", (W. Zheng et al.), AJ, 120, 1607 (2000). (astro-ph/0005247)
150. "The Missing Link: Early Methane ("T") Dwarfs in the Sloan Digital Sky Survey", (S.K. Leggett et al.), ApJL, 536, L35 (2000).
151. "Discovery of a Close Pair of $z = 4.25$ Quasars from SDSS", (D. Schneider et al.), AJ, 120, 2183 (2000).
152. "The First Large Cosmic Structures", in The First Generation of Cosmic Structures, CfA Conf. Proceedings (2000).
153. "A Large Uniform Sample of X-ray AGNs from the ROSAT All Sky and Sloan Digital Surveys", (B. Margon et al.), HEAD (AAS), 32, 02.09 (2000).
154. "The Evolution of the Cluster Mass Function from Gpc3 Simulations", (P. Bode, N. Bahcall, E. Ford, and J. Ostriker), ApJ, 551, 15 (2001). (astro-ph/0011376)
155. "High Redshift Quasars Found in the SDSS Commissioning Data III: A Color Selected Sample of $i < 20m$ in the Fall Equatorial Stripe", (Fan et al.), AJ, 121, 31 (2001). (astro-ph/0008122)
156. "High Redshift Quasars Found in the SDSS Commissioning Data IV: Luminosity Function from the Fall Equatorial Stripe", (Fan et al.), AJ, 121, 54 (2001). (astro-ph/0008123)
157. "Detection of Massive Tidal Tails Around the Globular Cluster Pal 5 with SDSS Commissioning Data", (M. Odenkirchen et al.), ApJL, 548, L165 (2001). (astro-ph/0012311).
158. "Constructing the Universe with Clusters of Galaxies", Conference Summary, IAP 2000, eds. F. Durret and D. Gerbal, ADS 2000 CUCG. ConfE. 95B, 7, 1 (2001).
159. "The Mass Density of the Universe", IAU Symposium 2001 on "Cosmological Data and the Values of the Fundamental Parameters", IAU General Assembly 24, 128 Kluwer Academic Publishers, ed. A. Lazenby, (2001).
160. "High Redshift Quasars Found in SDSS Commissioning Data: V. Hobby-Eberly Telescope Observations", (D. Schneider et al.), AJ, 121, 1232 (2001). (astro-ph/0012083)
161. "Colors of 2625 Quasars at $z=0-5$ Measured in the SDSS Photometric System", (G. Richards et al.), AJ, 121, 2308 (2001). (astro-ph/0012449)
162. "Weak Lensing Measurements of 42 SDSS/RASS Galaxy Clusters", (E.S. Sheldon et al.), ApJ, 554, 881 (2001).

163. "The First Hour of Extra-Galactic Data of the SDSS Spectroscopic Commissioning: The Coma Cluster", (Castander et al.), AJ, 121, 2331 (2001). (astro-ph/0010470)
164. "The Luminosity Function of Galaxies in SDSS Commissioning Data", (M. Blanton et al.), AJ, 121, 2358 (2001). (astro-ph/0012085)
165. "Early Extragalactic Results from SDSS", (R. Lupton et al.), ASP Conf. Series, (2001).
166. "Galaxy Number Counts from SDSS Commissioning Data", (N. Yasuda et al.), AJ, 122, 1104 (2001).
167. "Composite Quasar Spectra from the Sloan Digital Sky Survey", (D.E. Vanden Berk et al.), AJ, 122, 549 (2001).
168. "SDSS Color Separation of Galaxy Types", (I. Strateva et al.), AJ, 122,1861 (2001).
169. "Broad Absorption Line Quasars in the SDSS with VLA; FIRST Radio Detections", (K. Menou et al.), ApJ, 561, 645 (2001).
170. "High Redshift Quasars Found in SDSS, VI", (S. Anderson et al.), AJ, 122, 503, (2001).
171. "Photometric Redshifts of Quasars", (G.T. Richards et al.), AJ, 122, 1151 (2001).
172. "The Mass-to-Light Function and the Mass Density of the Universe", STScI 2001 "The Dark Universe" Conference Proceedings, 16 (2001).
173. "A Survey of $z > 5.8$ Quasars in the SDSS: I. Discovery of Three New Quasars and the Spatial Density of Luminous Quasars at $z \sim 6$ ", (Fan et al.), AJ, 122, 2833 (2001).
174. "The Sloan Digital Sky Survey Luminous Red Galaxy Sample", (D. Eisenstein et al.), AJ, 122, 2267 (2001).
175. "Evidence for Reionization at $z \sim 6$: detection of a Gunn-Peterson Trough in a $z=6.28$ Quasar", (Becker et al.), AJ, 122, 2850 (2001).
176. "Intrinsic Alignment of Galaxy Shapes is Weak: Limits on the Contamination of Weak Lensing Signal", (T. McKay et al.), SDSS Publication (2002).
177. "The Cut and Enhance Method: Selecting Clusters of Galaxies from the SDSS Commissioning Data", (T. Goto et al.), AJ, 123, 1807 (2002).
178. "The Angular Clustering of Galaxy Pairs", (L. Infante et al.), ApJ, 567, 155 (2002).
179. "Detecting Clusters of Galaxies in SDSS, I: Monte Carlo Comparison of Cluster Detection Algorithms", (R. Kim et al.), AJ, 123, 20 (2002).

180. “Antibias in Clusters: The Dependence of M/L on Cluster Temperature”, (N.A. Bahcall and Julie Comerford), *ApJL*, 565, L5 (2002).
181. “Sloan Digital Sky Survey: Early Data Release”, (C. Stoughton et al.), *AJ*, 123, 485 (2002).
182. “Dynamical Confirmation of Sloan Digital Sky Survey Weak-Lensing Scaling Laws”, (T. McKay et al.), *ApJL*, 571, L85 (2002). (astro-ph/0204383)
183. “The Angular Correlation Function of Galaxies from Early SDSS Data”, (A. Connolly et al.), *ApJ*, 579, 42 (2002). (astro-ph/0107417)
184. “The Angular Power Spectrum of Galaxies from Early SDSS Data”, (M. Tegmark et al.), *ApJ*, 571, 191 (2002).
185. “Analysis of Systematic Effects and Statistical Uncertainties in Angular Clustering of Galaxies from Early SDSS Data”, (R. Scranton et al.), *ApJ*, 579, 48 (2002). (astro-ph/0107416)
186. “The 3-D Galaxy Power Spectrum from Early SDSS Angular Clusterings”, (S. Dodelson et al.), *ApJ*, 572, 140, (2002).
187. “Galaxy Clustering in Early SDSS Redshift Data”, (I. Zehavi et al.), *ApJ*, 571, 172 (2002).
188. “Higher-Order Galaxy Clustering in Early SDSS Data”, (I. Szapudi et al.), *ApJ*, 570, 75 (2002).
189. “The Alignment Effect of Brightest Cluster Galaxies in SDSS”, (R. Kim et al.), “Where is the Matter?”, June 2001, Frontier Group, eds. Treyer and Tresse, (2002).
190. “The SDSS Quasar Catalog: I. Early Data Release”, (D. Schneider et al.), *AJ*, 123, 567 (2002).
191. “Unusual Broad Absorption Line Quasars from SDSS”, (P. Hall et al.), *ApJS*, 141, 267 (2002).
191. “Optical and Radio Properties of Extragalactic Sources Observed by the FIRST Survey and the SDSS”, (Z. Ivezić et al.), *AJ*, 124, 2364 (2002). (astro-ph/0202408)
193. “Exploratory Chandra Observations of the Three Highest Redshift Quasars Known”, (X. Fan et al.), *ApJL*, 569, L5 (2002).
194. “Galaxy Mass and Luminosity Scaling Laws Determined by Weak Gravitational Lensing”, (T. A. McKay, et al.), SDSS Publication (2002). (astro-ph/0108013)

195. "Two Dimensional Topology of the Sloan Digital Sky Survey", (F. Hoyle et al.), ApJ, 580, 663 (2002). (astro-ph/0206146)
196. "The Luminosity Density of Red Galaxies", (D. Hogg et al.), AJ, 124, 646 (2002).
197. "Composite Luminosity Function of the Sloan Digital Sky Survey Cut & Enhance Galaxy Clusters", (Tomo Goto et al.), PASJ, 54, 4 (2002).
198. "Early Type Galaxies in SDSS: I. The Sample", (M. Bernardi et al.), AJ, 125, 1817 (2003). (astro-ph/0301631)
199. "Early Type Galaxies in SDSS: II. The Correlation Between Observable", (M. Bernardi et al.), AJ, 125, 1849 (2003). (astro-ph/0301624)
200. "Early Type Galaxies in SDSS: III. The Fundamental Plane", (M. Bernardi et al.), AJ, 125, 1866 (2003). (astro-ph/0301626)
201. "Early Type Galaxies in SDSS: IV. Colors and Chemical Evolution", (M. Bernardi et al.), AJ, 125, 1882 (2003). (astro-ph/0301629)
202. "KL Estimation of Power Spectrum Parameters from the Angular Distribution of Galaxies in Early SDSS Data", (A. Szalay et al.), ApJ, 591, 1 (2003). (astro-ph/0107419)
203. "Morphological Butcher-Oemler Effect in the SDSS Cut& Enhance Galaxy Cluster Catalog", (Tomo Goto et al.), PASJ, 55, 757 (2003). (astro-ph/0301302)
204. "The Velocity Function of Early-Type Galaxies", (R. K. Sheth, et al.), ApJ, 594, 225 (2003). (astro-ph/0303092)
205. "The Broad-band Optical Properties of Low-Redshift Galaxies", (M. Blanton et al.), ApJ, 594, 186 (2003). (astro-ph/0209479)
206. "The Galaxy Luminosity Function and Luminosity Density at Redshift $z=0.1$ ", (M. Blanton et al.), ApJ, 592, 819 (2003). (astro-ph/0210215)
207. "The Cluster Mass-Function from Early SDSS Data: Cosmological Implications", (N. Bahcall, D. Feng, P. Bode, et al.), ApJ, 585, 182 (2003). (astro-ph/0205490)
208. "Cosmological Constraints from Combined Analysis of the Cluster Mass Function and Microwave Background Anisotropies", (A. Melchiorri, P. Bode, N. Bahcall, J. Silk), ApJL, 586, L1 (2003).
209. "The Amplitude of Mass Fluctuations in the Universe", (N. Bahcall and P. Bode), ApJL, 588, L1 (2003).

210. "The Overdensities of Galaxy Environments as a Function of Luminosity and Color", (D. Hogg, et al.), *ApJL*, 585, L5 (2003). (astro-ph/0212085)
211. "A Survey of $z > 5.7$ Quasars in the SDSS: II. Discovery of Three Additional Quasars at $z > 6$ ", (X. Fan et al.), *AJ*, 125, 2876 (2003).
212. "Angular Clustering with Photometric Redshifts in SDSS", (T. Budavari et al.), *ApJ*, 595, 59 (2003). (astro-ph/0305603)
213. "A Merged Catalog of Cluster of Galaxies from Early SDSS Data", (N. Bahcall, et al.), *ApJS*, 148, 243 (2003). (astro-ph/0305202)
214. "A Large, Uniform Sample of X-ray Emitting AGN: Selection Approach and an Initial Catalog from the ROSAT All-Sky and Sloan Digital Sky Surveys", (S.F. Anderson, et al.), *AJ*, 126, 2009 (2003). (astro-ph/0305093)
215. "The First Data Release of the Sloan Digital Sky Survey", (K. Abazajian, et al.), *AJ*, 126, 2081, 2003.
216. "The Overdensities of Galaxy Environments as a Function of Luminosity and Color", (D. Hogg, et al.), *ApJ*, 585, 5 (2003).
217. "SDSS J0903+5028: A New Gravitational Lens", (D. E. Johnston, et al.), *AJ*, 126, 2281 (2003).
218. "The Sloan Digital Sky Survey Quasar Catalog II. Data Release 1", (D.P. Schneider, et al.), *AJ*, 126, 2579 (2003).
219. "The Richness-Dependent Cluster Correlation Function: Early SDSS Data", (N. A. Bahcall, F. Dong, et al.), *ApJ*, 599, 814 (2003). (astro-ph/0307102)
220. "A Gravitationally Lensed Quasar with Quadruple Images Separated by 14.62 Arcseconds", (N. Inada, et al), *Nature*, 426, 810 (2003).
221. "On Departures From a Power Law in the Galaxy Correlation Function", (I. Zehavi, et al.), *ApJ*, 608, 16 (2003). (astro-ph/0301280)
222. "The Three-Dimensional Power Spectrum of Galaxies from the Sloan Digital Sky Survey", (M. Tegmark, et al.), *ApJ*, 606, 702 (2003).
223. "Observations and Theoretical Implications of the Large Separation Lensed Quasar SDSS J1004+4112", (M. Oguri, et al.) *ApJ*, 605, 78 (2003) (astro-ph/0312429)
224. "Stellar and Dynamical Masses of Ellipticals in the Sloan Digital Sky Survey", (N. Padmanabhan, et al.), *New Astronomy*, 9, 329 (2003). (astro-ph/0307082)

225. "Physical Evidence for Dark Energy", (R Scranton, et al.), Physical Review Letters (2003). (astro-ph/0307335)
226. "The dependence on environment of the color--magnitude relation of galaxies", (D. Hogg, et al.), ApJL, 601, L29, (2004). (astro-ph/0307336)
227. "A Snapshot Survey for Gravitational Lenses Among $z \geq 4.0$ Quasars: I. The $z > 5.7$ Sample", (G. T. Richard, et al.), AJ, 127, 1305 (2004).
228. "Evolution of the Cluster Correlation Function", (N. Bahcall, L. Hao, et al.), ApJ, 603, 1, (2004). (astro-ph/0309544)
229. "A Catalog of Compact Groups of Galaxies in the SDSS Commissioning Data", (B. C. Lee, et al.), AJ, 127, 1811 (2004).
230. "The Galaxy-mass Correlation Function Measured from Weak Lensing in the SDSS", (E. S. Sheldon, et al.) AJ, 127, 2544 (2004). (astro-ph/0312036)
231. "Cosmological Parameters from SDSS and WMAP", (M. Tegmark et al.), Physical Review D, 69, 10 (2004). (astro-ph/0310723)
232. "Cosmological Parameters from Eigenmode Analysis of Sloan Digital Sky Survey Galaxy Redshifts", (A. Pope, et al.), ApJ, 607, 655 (2004).
233. "The Second Data Release of the Sloan Digital Sky Survey", (K. Abazajian, et al.), AJ, 128, 502 (2004). (astro-ph/0403325)
234. "A Survey of $z > 5.7$ Quasars in the Sloan Digital Sky Survey. III. Discovery of Five Additional Quasars", (X. Fan, et al.), AJ, 128, 515 (2004).
235. "Sloan Digital Sky Survey Imaging of Low Galactic Latitude Fields: Technical Summary and Data Release", (D. Finkbeiner, et al.), AJ, 128, 2577 (2004).
236. "SDSS Galaxy Bias from Halo Mass-Bias Relation and Its Cosmological Implications", (U. Seljak, et al.), Physical Review Letters, D, 71, 3511 (2005). (astro-ph/0406594)
237. "The Linear Theory Power Spectrum from the Ly- α Forest in SDSS", (P. McDonald, et al.), ApJ, 635, 761 (2005). (astro-ph/0407377)
238. "Cosmological Parameters Analysis Including SDSS Lyman- α and Galaxy Bias: New Constraints on the Primordial Spectrum of Fluctuations, Neutrino Mass, and Dark Energy", (U. Seljak, et al.), Physical Review D71, 3515 (2005). (astro-ph/0407372)
239. "Cosmology and the Halo Occupation Distribution from Small-Scale Galaxy Clustering in SDSS", (K. Abazajian, et al.), ApJ, 625, 613 (2005). (astro-ph/0408003)

240. "The Luminosity and Color Dependence of the Galaxy Correlation Function", (I. Zehavi, et al.), ApJ, 630, 1 (2005). (astro-ph/0408569)
241. "The Small-Scale Clustering of Luminous Red Galaxies via Cross-Correlation Techniques", (D. Eisenstein, et al.), ApJ, 619, 178 (2005). (astro-ph/0411559)
242. "The Third Data Release of the Sloan Digital Sky Survey", (K. Abazajian, et al.), AJ, 129, 1755 (2005). (astro-ph/0410239)
243. "Rotation Velocities of Two Low Luminosity Field Galaxies", (J. Pizagno et al.), ApJL, submitted (2005). (astro-ph/0410672)
244. "Cosmic Homogeneity Demonstrated with Luminous Red Galaxies", (D. Hogg, et al.), ApJ, 624, 54 (2005). (astro-ph/0411197)
245. "The SDSS U-Band Galaxy Survey: Luminosity Function and Evolution", (I. Baldry, et al.), MNRAS, 358, 441 (2005).
246. "Discovery of Two Gravitational Lensed Quasars with Image Separations of 3 Arcseconds From the Sloan Digital Sky Survey", (M. Oguri, et al.), ApJ, 622, 106, (2005). (astro-ph/0411250)
247. "The SDSS: Third Data Release Quasar Catalog", (D. Schneider, et al.), AJ, 130, 367, (2005). (astro-ph/0503679)
248. "A Map of the Universe" (J.R. Gott et al.) ApJ, 624, 463 (2005).
249. "Evolution of the Cluster Mass and Correlation Functions in LCDM Cosmology", (J. Younger, N. Bahcall and P. Bode), ApJ, 622, 1 (2005). (astro-ph/0410670)
250. "Large Scale Clustering of SDSS Quasars: Impact of the Baryon Density and the Cosmological Constant", (K. Yahata, et al.), PASJ, 57, 529 (2005).
251. "Cosmology with Clusters of Galaxies", (N. Bahcall), Nuclear Physics B, 138, 16 (2005).
252. "Cluster Alignments and Ellipticities in LCDM Cosmology", (P. Hopkins, N. Bahcall and P. Bode), ApJ, 618, 1 (2005).
253. "Detection of the Baryon Acoustic Peak in the Large-Scale Correlation Function of SDSS Luminous Red Galaxies", (Eisenstein, D., et al), ApJ, 633, 560 (2005). (astro-ph/0501171)
254. "The C4 Clustering Algorithm: Clusters of Galaxies in the Sloan Digital Sky Survey", (Miller, C., et al), AJ, 130, 968 (2005). (astro-ph/0503713)

255. “Detection of Cosmic Magnification with the Sloan Digital Sky Survey”, (R. Scranton, et al), ApJ, 633, 589 (2005). (astro-ph/0504510)
256. “An X-ray Galaxy Cluster Survey for Investigations of Dark Energy”, (Haiman, et al), Dark Energy Task Force White Paper (2005). (astro-ph/0507013)
257. “Binary Quasars in the Sloan Digital Sky Survey: Evidence for Excess Clustering on Small Scales”, (J. Hennawi, et al.), AJ, 131, 1 (2006). (astro-ph/0504535)
258. “The Lyman- α Forest Power Spectrum from SDSS”, (P. McDonald, et al.), ApJS, 163, 80 (2006) (astro-ph/0405013)
259. “A Snapshot Survey for Gravitational Lenses Among $z \geq 4.0$ Quasars: II. Constraints on the $4.0 < z < 4.5$ Quasar Population”, (G.T. Richards, et al.) AJ, 131, 49 (2006). (astro-ph/0509135) (and AJ, 132, 967)
260. “A Survey of $z > 5.7$ Quasars in the SDSS: Discovery of Seven Additional Quasars”, (X. Fan, et al.), AJ, 131, 1203 (2006). (astro-ph/0512080)
261. “The Fourth Data Release of the Sloan Digital Sky Survey”, (J. Adelman et al.), ApJ Suppl, 162, 38 (2006)
262. “Percolation Galaxy Groups and Clusters in the SDSS Redshift Survey: Identification, Catalog, and the Multiplicity Function”, (A. Berlind, et al.), ApJ Suppl. 167, 1 (2006) . (astro-ph/0601346)
263. “The Effect of Large-Scale Structure on the Galaxy Three-Point Correlation Function”, (R. Nichol, et al.), MNRAS, 368, 1507 (2006). (astro-ph/0602548)
264. “The Small-Scale Environment of Quasars”, (W. Serber, N. Bahcall, B. Menard, G. Richards), ApJ, 643, 68 (2006). (astro-ph/0601522)
265. “Cluster Ellipticities as a Cosmological Probe”, (S. Ho, N. Bahcall, P. Bode), ApJ, 647, 8 (2006). (astro-ph/0511776)
266. “The Shape, Multiplicity and Evolution of Superclusters in LCDM Cosmology”, (J. Wray, N. Bahcall, P. Bode, C. Boettinger, P. Hopkins), ApJ, 652, 907 (2006). (astro-ph/0603060)
267. “Cosmological Constraints from the SDSS Luminous Red Galaxies” (M. Tegmark, et al), Phys. Rev. D, 74, 123507 (2006) (astro-ph/0608632)
268. “The Clustering of Luminous Red Galaxies in SDSS Imaging Data ” (N. Padmanabhan, et al), MNRAS, 378, 852 (2007). (astro-ph/0605302)

269. "A MaxBCG Catalog of 13,823 Galaxy Clusters from the Sloan Digital Sky Survey" (B. Koester, et al), *ApJ*, 660, 239 (2007)
270. "The Shape of the SDSS DR5 Galaxy Power Spectrum" (W. Percival, et al), *ApJ*, 657, 645 (2007) (astro-ph/0608636)
271. "Measuring the Matter Density using Baryon Oscillations in the SDSS" (W. Percival, et al), *ApJL*, 657, 51 (2007) (astro-ph/0608635), ,
272. "Clustering Analyses of 300,000 Photometrically Classified Quasars: I. Luminosity and Redshift Evolution in Quasar Bias" (A. Myers, et al), *ApJ*, 658, 85 (2007) (astro-ph/0612190)
273. "Clustering Analyses of 300,000 Photometrically Classified Quasars: II. The Excess on Very Small Scales" (A. Myers, et al), *ApJ*, 658, 99 (2007) (astro-ph/0612191)
274. "The Fifth Data Release of the Sloan Digital Sky Survey" (J. Adelman-McCarthy, et al), *ApJS.*, 172, 634 (2007)
275. "The Sloan Digital Sky Survey Quasar Catalog: Fifth Data Release", (D. Schneider, et al), *AJ*, 134, 102 (2007) (astro-ph/0704.0806)
276. "Clustering of High Redshift Quasars from the Sloan Digital Sky Survey" (Y. Shen, et al) *AJ*, 133, 2222 (2007)
277. "A New Survey for Giant Arcs" (J. Hennawi, et al), *AJ*, 135, 664 (2008) (astro-ph/0610061)
278. "The Six Data Release of the Sloan Digital Sky Survey" (J. Adelman, et al) *ApJS.*, 175, 297 (2008)
279. "The Sloan Digital Sky Survey Quasar Lens Survey: II. Statistical Lens Sample from the Third Data Release" (N. Inada, et al) *AJ*, 135, 496 (2008) (astro-ph/0708.0828)
280. "The Sloan Digital Sky Survey Quasar Lens Survey: III. Constraints on Dark Energy from the Third Data Release Quasar Lens Catalog" (N. Inada, et al) *AJ*, 135, 512 (2008) (astro-ph/0708.0825)
281. "Do Broad Absorption Line Quasars Live in Different Environments?" (Y. Shen, et al), *ApJL*, 677, 858 (2008) (astro-ph/0712.2042)
282. "Correlation of CMB with Large-Scale Structure: I. ISW Tomography and Cosmological Implications" (S. Ho, et al) *Phys. Rev. D.* 78, 3519 (2008) (astro-ph/0801.0642)

283. "Correlation of CMB with Large-Scale Structure: II. Weak Lensing" (C. Hirata, et al), Phys. Rev. D. 78, 3520 (2008) (astro-ph/0801.0644)
284. "Improved Optical Mass Tracer for Galaxy Clusters Calibrated with Weak Lensing Measurements" (R. Reyes, et al), MNRAS, 390, 1157 (2008) (astro-ph/0802.2365)
285. "Studying the Clustering of Black-Hole Masses of Active Galactic Nuclei with the SDSS and Future Surveys" (M. Strauss, et al), ASCS, 399, 12 (2008)
286. "Cross-Correlation Weak Lensing of SDSS Galaxy Clusters: I. Measurements" (E. Sheldon, et al), ApJ, 703, 2232(2009) (astro-ph/0709.1153)
287. "Quasar Clustering from SDSS DR5: Dependences on Physical Properties" (Y. Shen, et al), ApJ, 697, 1656 (2009) (astro-ph/0810.4144)
288. "Five New High-Redshift Quasar Lenses from the Sloan Digital Sky Survey" (N. Inada, et al), AJ, 137, 4118 (2009) (astro-ph/0809.0912)
289. "Clustering of Low-Redshift Quasars ($z \leq 2.2$) in SDSS" (N. Ross, et al), ApJ, 697, 1634 (2009) (astro-ph/0903.3230)
290. "The Seventh Data Release of the Sloan Digital Sky Survey" (Abazajian, et al), ApJS, 182, 543 (2009) (astro-ph/0812.0649)
291. "A Cross-Correlation Analysis of Mg II Absorption Line Systems and Luminous-Red-Galaxies from SDSS DR5" (B. Lundgren, et al), ApJ, 698, 819 (2009) (astro-ph/0902.4003)
292. "Baryon Acoustic Oscillations in the SDSS DR7 Galaxy Sample" (W. Percival, et al), MNRAS, 401, 2148 (2009) (astro-ph/0907.1660)
293. "The Sloan Digital Sky Survey Quasar Lens Search IV. Statistical Lens Sample from DR5" (N. Inada, et al), AJ, 140, 403 (2010) (astro-ph/1005.5570)
294. "Baryonic Acoustic Oscillations in the Sloan Digital Sky Survey DR 7 Galaxy Sample", (W. Percival, et al), MNRAS, 401, 2148 (2010)
295. "Cosmological Constraints from the Clustering of the DR7 Luminous Red Galaxies" (B. Reid et al), MNRAS, 404, 60 (2010) (astro-ph/0907.1659)
296. "The Baryonic Acoustic Feature and Large-Scale Clustering in the SDSS LRG Sample" (E. Kazin, et al), ApJ, 710,1444-1461 (2010) (astro-ph/0908.2598)
297. "Optically Selected BL Lacertae Candidates from the SDSS Data Release Seven" (R. Plotkin et al). AJ. 139, 390 (2010) (astro-ph/0911.0423)

298. “The Sloan Digital Sky Survey Quasar Catalog: V. Seventh Data Release” (D. Schneider, et al), AJ, 139, 2360 (2010)
299. “The SDSS –DR7 Quasar Catalog” (Schneider, D., etal), 2010y Cat. 7260. (2010)
300. “Chandra’s First Decade of Discovery” (N. Bahcall and H. Tananbaum, editors), PNAS, 107, 7127 (2010)
301. “Galaxy Clustering in the Completed SDSS Redshift Survey: The Dependence on Color and Luminosity” (I. Zehavi etal), ApJ, 736, 59 (2011)
302. “Searching for the Missing Baryons in Clusters” (B. Rasheed, N. Bachall, P. Bode), PNAS, 108, 3487-3492, (2011)
303. “Baryon Acoustic Oscillations in the Sloan Digital Sky Survey” (W. Percival et al), MNRAS, 417, 3101 (2011)
304. “Cosmological Constraints from the Clustering of SDSS Luminous Red Galaxies” (B. Reid et al), MNRAS 417, 3103 (2011)
305. “Detection of Intrinsic Cluster Alignment to $100h^{-1}$ Mpc in SDSS” (A. Smargon, R. Mandelbaum, N. Bahcall, M. Niederste-Ostholt), MNRAS, 423, 856 (2012) (astro-ph/1109.6020)
306. “The Sloan Digital Sky Survey Quasar Lens Search: V. Final Catalog from the Seventh Data Release” (N. Inada, etal), AJ, 143, 119 (2012)
307. “The Sloan Digital Sky Survey Quasar Lens Search: VI. Constraints on Dark Energy and Evolution of Massive Galaxies”, (M. Oguri, et al), AJ, 143, 120 (2012)
308. “The Clustering of Galaxies in the SDSS-III Baryon Oscillations Spectroscopic Survey: Cosmological Implications of the Large-Scale Two-Point Correlation Function” (A. Sanchez, et al), MNRAS 425, 415 (2012)
309. ”Clustering of Sloan Digital Sky Survey Photometric Luminous Galaxies: The Measurements, Systematics, and Cosmological Implications” (S. Ho, et al), ApJ, 761, 14 (2013)
310. “The Clustering of Galaxies in the SDSS-III Baryon Oscillation Spectroscopic Survey: Luminosity and Color Dependence and Redshift Evolution”, (Guo, H., et al), ApJ, 767, 122 (2013) (astro-ph/1212.1211)
311. “Characterizing Unknown Systematics in Large-Scale Structure Surveys” (N. Agarwal et al), JCAP 04, 007 (2014) (astro-ph/1309.2954)

312. “Tracing Mass and Light in the Universe: Where is the Dark Matter?” (N. Bahcall and Andrea Kulier), MNRAS 439, 2505 (2014) (astro-ph/1310.0022)
313. “The Clustering of Galaxies in the SDSSIII Baryon Oscillation Spectroscopic Survey: Modeling of the Luminosity and Color Dependence in the DR10” (H. Guo et al), MNRAS 441, 2398 (2014) (astro-ph/1401.3009)
314. “Intrinsic Alignments: Cosmology from Large-Scale Structure” (E. Chisari et al), BAAS 223, 42601 (2014)
315. “Gas Loss in Simulated Galaxies as They Fall into Clusters of Galaxies” (R. Cen, A. Pop, N. Bahcall), PNAS 111, 7914 (2014) (astro-ph/1405.0537)
316. “Intrinsic Alignments of Groups and Clusters of Galaxies in Photometric Surveys” (E. Chisari et al), MNRAS 445, 726 (2014) (astro-ph/1407.4813)
317. “Exoplanets” Special Feature Issue, Editor, PNAS 111, 12599-12666 (2014)
318. “SDSSIII Photometric Quasar Clustering: Probing the Initial Conditions of the Universe Using the Largest Volume” (S. Ho et al), JCAP 05, 040 (2015)
319. “Hubble’s Law and the Expanding Universe”, PNAS 112, 3173-3175 (2015)
320. “Dark Matter Universe”, PNAS, 112, 40, 12243-12245 (2015)
321. “Dark Matter” (Peebles, PJE), Editor, PNAS 112, 12246-12248 (2015)
322. “Cold Dark Matter: Controversies on Small Scales” (Weinberg, D. et al), Editor, PNAS 112, 12249-12255 (2015)
323. “Supersymmetric Dark Matter” (Peskin, M.), Editor, PNAS 112, 12256-12263 (2015)
324. “Dark Matter QCD-Axion Searches” (Rosenberg, L.J.), Editor, PNAS 112, 12278-12281 (2015)
325. “John Bahcall and the Solar Neutrino Problem”, APS.APR.Q1003B (2016)
<http://meetings.aps.org/Meeting/APR16/Session/Q1.3>
326. “Detecting Effects of Filaments on Galaxy Properties in the Sloan Digital Sky Survey III” (Chen, Y.C. et al), MNRAS, in press (2016) (astro-ph/1509.06376)
327. “The Clustering of Galaxies in the Completed SDSS-III Baryon Oscillations Spectroscopic Survey: On the Measurements of Growth Rate using Galaxy Correlation Functions” (Satpathy, S. et al), MNRAS, in press (2016) (astro-ph/1607.03148)

328. “Exoplanets Orbital Eccentricities Derived from LAMOST-Kepler Analysis” (J.W. Xie, et al), Editor, PNAS 113, #41, 11431-11435 (2016)
329. “First Light of the Gemini Planet Imager” (Macintosh,B. et al), Editor, PNAS 111, #35, 12661-12666 (2016)
330. “A Population of Planetary Systems Characterized by Short-Period, Earth-Sized Planets” (Steffen, J., Coughlin, J.), Editor, PNAS 113, #43, 12023-12028 (2016)
331. “ Tracing Dark Matter and Baryons in the Universe”, (N. Bahcall and B. Cook), in preparation (2016)
332. “The Cosmic Baryon Budget”, (Neta Bahcall and Ana Diaz), in preparation (2016)
333. “Supermassive Black Holes in Quasars”, in preparation (2016)
334. “ Baryon Acoustic Oscillations Using Clusters of Galaxies”, in preparation (2016)

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