RESEARCH & PUBLICATIONS

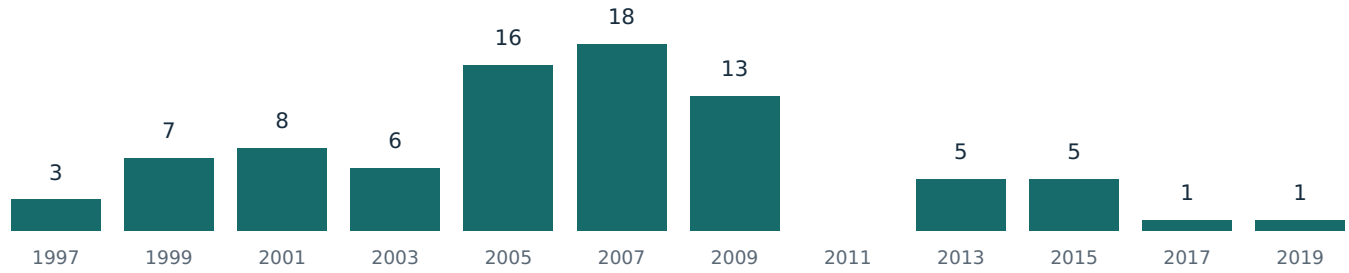
Robert J Brunner

A publication record at a glance

83	21,721	55
ARTICLES	CITATIONS	h-INDEX

PUBLICATION ACTIVITY

Articles grouped into 2-year periods



MOST CITED IN THIS LIST

The Seventh Data Release of the Sloan Digital Sky Survey — 4,847
2009 Astrophysical Journal, Supplement Series

Color Separation of Galaxy Types in the Sloan Digital Sky Survey Imaging Data — 1,467
2001 Astronomical Journal

The Sixth Data Release of the Sloan Digital Sky Survey — 1,284
2008 Astrophysical Journal, Supplement Series

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Ordered by publication year, newest first

2020

01 **PyIF: A Fast and Light Weight Implementation to Estimate Bivariate Transfer Entropy for Big Data**
Journal unavailable
https://exaly.com/article/76402519
10 citations

2017

02 **Star–Galaxy Classification Using Deep Convolutional Neural Networks**
Monthly Notices of the Royal Astronomical Society · 464, 4463-4475
https://exaly.com/article/67782176
188 citations

2016

03 **Teaching Data Science**
Procedia Computer Science · 80, 1947-1956
https://exaly.com/article/64634766
71 citations

04 **Machine Learning and Cosmological Simulations – I. Semi-Analytical Models**
Monthly Notices of the Royal Astronomical Society · 455, 642-658
https://exaly.com/article/65391109
45 citations

05 **Machine Learning and Cosmological Simulations – II. Hydrodynamical Simulations**
Monthly Notices of the Royal Astronomical Society · 457, 1162-1179
https://exaly.com/article/65546798
54 citations

2015

06 **A Hybrid Ensemble Learning Approach to Star–Galaxy Classification**
Monthly Notices of the Royal Astronomical Society · 453, 507-521
https://exaly.com/article/60177497
45 citations

07 **Spectroscopic Needs for Imaging Dark Energy Experiments**
Astroparticle Physics · 63, 81-100
https://exaly.com/article/62908651
89 citations

2014

08 **Exhausting the Information: Novel Bayesian Combination of Photometric Redshift PDFs**
Monthly Notices of the Royal Astronomical Society · 442, 3380-3399
https://exaly.com/article/57916912
55 citations

09 **SOMz: Photometric Redshift PDFs With Self-Organizing Maps and Random Atlas**
Monthly Notices of the Royal Astronomical Society · 438, 3409-3421
https://exaly.com/article/57940677
112 citations

Ordered by publication year, newest first

2014 / continued

10 Sparse Representation of Photometric Redshift Probability Density Functions: Preparing for Petascale Astronomy
16 citations
Monthly Notices of the Royal Astronomical Society · 441, 3550-3561
https://exaly.com/article/58624361

2013

11 TPZ: Photometric Redshift PDFs and Ancillary Information by Using Prediction Trees and Random Forests
250 citations
Monthly Notices of the Royal Astronomical Society · 432, 1483-1501
https://exaly.com/article/56231415

12 Narrow Absorption Line Variability in Repeat Quasar Observations From the Sloan Digital Sky Survey
23 citations
Monthly Notices of the Royal Astronomical Society · 434, 163-185
https://exaly.com/article/56355409

2010

13 Evolution of the Clustering of Photometrically Selected SDSS Galaxies
31 citations
Monthly Notices of the Royal Astronomical Society · 407, 420-434
https://exaly.com/article/48491117

14 Data Mining and Machine Learning in Astronomy
307 citations
International Journal of Modern Physics D · 19, 1049-1106
https://exaly.com/article/49040303

2009

15 Quasar Clustering From SDSS DR5: Dependences on Physical Properties
219 citations
Astrophysical Journal · 697, 1656
https://exaly.com/article/45206377

16 Clustering of Low-Redshift ($Z \leqslant 2.2$) Quasars From the Sloan Digital Sky Survey
232 citations
Astrophysical Journal · 697, 1634
https://exaly.com/article/45330359

17 A Cross-Correlation Analysis of Mg Ii Absorption Line Systems and Luminous Red Galaxies From the SDSS DR5
86 citations
Astrophysical Journal · 698, 819
https://exaly.com/article/45334738

18 Eight-Dimensional Mid-Infrared/Optical Bayesian Quasar Selection
62 citations
Astronomical Journal · 137, 3884
https://exaly.com/article/45567176

Ordered by publication year, newest first

2009 / continued

19 Accelerating Cosmological Data Analysis With Graphics Processors — 14 citations
Journal unavailable
https://exaly.com/article/45744013

20 The 2dF-SDSS LRG and QSO Survey: The Spectroscopic QSO Catalogue — 124 citations
Monthly Notices of the Royal Astronomical Society · 392, 19-44
https://exaly.com/article/46321138

21 Halo-Model Analysis of the Clustering of Photometrically Selected Galaxies From SDSS — 48 citations
Monthly Notices of the Royal Astronomical Society · 399, 878-887
https://exaly.com/article/46322164

22 Accelerating Cosmological Data Analysis With FPGAs — 6 citations
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https://exaly.com/article/46644920

23 The Seventh Data Release of the Sloan Digital Sky Survey — 4,847 citations
Astrophysical Journal, Supplement Series · 182, 543
https://exaly.com/article/46996285

24 Efficient Photometric Selection of Quasars From the Sloan Digital Sky Survey. II. ~1, 000, 000 Quasars From Data Release 6 — 292 citations
Astrophysical Journal, Supplement Series · 180, 67
https://exaly.com/article/47386254

25 Implementation of the Two-Point Angular Correlation Function on a High-Performance Reconfigurable Computer — 4 citations
Scientific Programming · 17, 434735
https://exaly.com/article/96499567

2008

26 Robust Machine Learning Applied to Astronomical Data Sets. III. Probabilistic Photometric Redshifts for Galaxies and Quasars in the SDSS and GALEX — 81 citations
Astrophysical Journal · 683, 12
https://exaly.com/article/44564941

27 The Sixth Data Release of the Sloan Digital Sky Survey — 1,284 citations
Astrophysical Journal, Supplement Series · 175, 297
https://exaly.com/article/44567225

Ordered by publication year, newest first

2008 / continued

28 Normalization of the Matter Power Spectrum via Higher Order Angular Correlations of Luminous Red Galaxies
15 citations
Astrophysical Journal · 682, 737
https://exaly.com/article/44876151

29 AGN Environments in the Sloan Digital Sky Survey. I. Dependence on Type, Redshift, and Luminosity
35 citations
Astrophysical Journal · 688, 180
https://exaly.com/article/45016143

30 The Sloan Digital Sky Survey Quasar Lens Search. II. Statistical Lens Sample From the Third Data Release
91 citations
Astronomical Journal · 135, 496
https://exaly.com/article/45016206

31 The Sloan Digital Sky Survey Quasar Lens Search. III. Constraints on Dark Energy From the Third Data Release Quasar Lens Catalog
90 citations
Astronomical Journal · 135, 512
https://exaly.com/article/45033811

32 Quasar Clustering at 25 h−1 Kpc From a Complete Sample of Binaries
98 citations
Astrophysical Journal · 678, 635
https://exaly.com/article/45039044

2007

33 The Sloan Digital Sky Survey Quasar Catalog. IV. Fifth Data Release
414 citations
Astronomical Journal · 134, 102
https://exaly.com/article/41835204

34 The Effect of Variability on the Estimation of Quasar Black Hole Masses
15 citations
Astrophysical Journal · 669, 791
https://exaly.com/article/41844566

35 Robust Machine Learning Applied to Astronomical Data Sets. II. Quantifying Photometric Redshifts for Quasars Using Instance-Based Learning
48 citations
Astrophysical Journal · 663, 774
https://exaly.com/article/41865080

36 Clustering Analyses of 300,000 Photometrically Classified Quasars. I. Luminosity and Redshift Evolution in Quasar Bias
167 citations
Astrophysical Journal · 658, 85
https://exaly.com/article/41868896

Ordered by publication year, newest first

2007 / continued

37 Clustering Analyses of 300,000 Photometrically Classified Quasars. II. The Excess on Very Small Scales
103 citations
Astrophysical Journal · 658, 99
https://exaly.com/article/41868897

38 Broad Absorption Line Variability in Repeat Quasar Observations From the Sloan Digital Sky Survey
96 citations
Astrophysical Journal · 656, 73
https://exaly.com/article/41919143

39 The Fifth Data Release of the Sloan Digital Sky Survey
643 citations
Astrophysical Journal, Supplement Series · 172, 634
https://exaly.com/article/42161703

40 Mitrion-C Application Development on SGI Altix 350/RC100
7 citations
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41 Accelerating Scientific Applications With Reconfigurable Computing: Getting Started
4 citations
Computing in Science and Engineering · 9, 70-77
https://exaly.com/article/42392862

42 On the Variability of Quasars: A Link Between the Eddington Ratio and Optical Variability?
124 citations
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https://exaly.com/article/42862726

43 Higher Order Angular Galaxy Correlations in the SDSS: Redshift and Color Dependence of Nonlinear Bias
23 citations
Astrophysical Journal · 665, 67
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2006

44 Robust Machine Learning Applied to Astronomical Data Sets. I. Star-Galaxy Classification of the Sloan Digital Sky Survey DR3 Using Decision Trees
90 citations
Astrophysical Journal · 650, 497
https://exaly.com/article/39546647

45 Precision Measurements of Higher Order Angular Galaxy Correlations Using 11 Million SDSS Galaxies
27 citations
Astrophysical Journal · 649, 48
https://exaly.com/article/40165988

Ordered by publication year, newest first

2006 / continued

46 First Measurement of the Clustering Evolution of Photometrically Classified Quasars
163 citations
Astrophysical Journal · 638, 622
https://exaly.com/article/40184104

47 The Fourth Data Release of the Sloan Digital Sky Survey
990 citations
Astrophysical Journal, Supplement Series · 162, 38
https://exaly.com/article/40252633

48 The Lyα Forest Power Spectrum From the Sloan Digital Sky Survey
411 citations
Astrophysical Journal, Supplement Series · 163, 80
https://exaly.com/article/40254454

49 Variable Faint Optical Sources Discovered by Comparing the POSS and SDSS Catalogs
48 citations
Astronomical Journal · 131, 2801
https://exaly.com/article/40254655

50 Binary Quasars in the Sloan Digital Sky Survey: Evidence for Excess Clustering on Small Scales
265 citations
Astronomical Journal · 131, 1
https://exaly.com/article/40261839

51 The Sloan Digital Sky Survey Quasar Survey: Quasar Luminosity Function From Data Release 3
788 citations
Astronomical Journal · 131, 2766
https://exaly.com/article/40276695

52 The 2df SDSS LRG and QSO Survey: Evolution of the Luminosity Function of Luminous Red Galaxies Toz= 0.6
143 citations
Monthly Notices of the Royal Astronomical Society · 372, 537-550
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53 High Redshift Detection of the Integrated Sachs-Wolfe Effect
152 citations
Physical Review D · 74, 063520
https://exaly.com/article/41165198

54 Spectral Variability of Quasars in the Sloan Digital Sky Survey. II. The C IV Line
31 citations
Astrophysical Journal · 641, 78
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Ordered by publication year, newest first

2005

55 Active Galactic Nuclei in the Sloan Digital Sky Survey. I. Sample Selection
223 citations
Astronomical Journal · 129, 1783
https://exaly.com/article/37901091

56 Discovery of Two Gravitationally Lensed Quasars With Image Separations of 3" From the Sloan Digital Sky Survey
65 citations
Astrophysical Journal · 622, 106
https://exaly.com/article/37910091

57 Spectral Variability of Quasars in the Sloan Digital Sky Survey. I. Wavelength Dependence
126 citations
Astrophysical Journal · 633, 638
https://exaly.com/article/37921849

58 Detection of Cosmic Magnification With the Sloan Digital Sky Survey
228 citations
Astrophysical Journal · 633, 589
https://exaly.com/article/37921865

59 The Third Data Release of the Sloan Digital Sky Survey
675 citations
Astronomical Journal · 129, 1755
https://exaly.com/article/39099730

2004

60 Efficient Photometric Selection of Quasars From the Sloan Digital Sky Survey: 100,000 Z
182 citations
Astrophysical Journal, Supplement Series · 155, 257
https://exaly.com/article/36286900

61 A Survey of z 5.7 Quasars in the Sloan Digital Sky Survey. III. Discovery of Five Additional Quasars
349 citations
Astronomical Journal · 128, 515
https://exaly.com/article/37621243

62 The Ensemble Photometric Variability of ~25,000 Quasars in the Sloan Digital Sky Survey
446 citations
Astrophysical Journal · 601, 692
https://exaly.com/article/37635586

63 Sloan Digital Sky Survey Imaging of Low Galactic Latitude Fields: Technical Summary and Data Release
76 citations
Astronomical Journal · 128, 2577
https://exaly.com/article/37645445

Ordered by publication year, newest first

2004 / continued

64 The Second Data Release of the Sloan Digital Sky Survey — 1,048 citations
Astronomical Journal · 128, 502
https://exaly.com/article/37661797

2003

65 The First Data Release of the Sloan Digital SkySurvey — 854 citations
Astronomical Journal · 126, 2081
https://exaly.com/article/35773625

2002

66 Massive Datasets in Astronomy — 33 citations
Massive Computing
https://exaly.com/article/83388947

67 Detecting Clusters of Galaxies in the Sloan Digital Sky Survey. I.Monte Carlo Comparison of Cluster Detection Algorithms — 118 citations
Astronomical Journal · 123, 20
https://exaly.com/article/85263131

68 SDSS J124602.54 + 011318.8: A Highly Luminous Optical Transient at z = 0.385 — 16 citations
Astrophysical Journal · 576, 673
https://exaly.com/article/85266472

2001

69 High-Redshift Quasars Found in Sloan Digital Sky SurveyCommissioning Data. IV. Luminosity Function From the Fall Equatorial StripeSample — 354 citations
Astronomical Journal · 121, 54
https://exaly.com/article/32752488

70 High-Redshift Quasars Found in Sloan Digital Sky Survey Commissioning Data. III. A Color-Selected Sample at i* — 117 citations
Astronomical Journal · 121, 31
https://exaly.com/article/32785471

71 Color Separation of Galaxy Types in the Sloan Digital Sky Survey Imaging Data — 1,467 citations
Astronomical Journal · 122, 1861
https://exaly.com/article/32788447

72 Galaxy Number Counts From the Sloan Digital Sky Survey CommissioningData — 227 citations
Astronomical Journal · 122, 1104
https://exaly.com/article/33465458

Ordered by publication year, newest first

2001 / continued

73 The Luminosity Function of Galaxies in SDSS CommissioningData
576 citations
Astronomical Journal · 121, 2358
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74 High-Redshift Quasars Found in Sloan Digital SkySurvey Commissioning Data. II. The SpringEquatorial Stripe
60 citations
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https://exaly.com/article/31119013

75 XID: Cross-Association of ROSAT/Bright SourceCatalog X-Ray Sources With USNO A-2 Optical PointSources
54 citations
Astrophysical Journal, Supplement Series · 131, 335
https://exaly.com/article/31119554

76 Designing and Mining Multi-Terabyte Astronomy Archives
134 citations
SIGMOD Record
https://exaly.com/article/31778478

77 The Discovery of a Luminousz = 5.80 Quasar From the SloanDigital Sky Survey
262 citations
Astronomical Journal · 120, 1167
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78 Evolution in the Clustering of Galaxies Forz
25 citations
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79 The Statistical Approach to Quantifying Galaxy Evolution
28 citations
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https://exaly.com/article/85258360

80 The Discovery of a High-Redshift Quasar Without EmissionLines From Sloan Digital Sky Survey CommissioningData
116 citations
Astrophysical Journal · 526, L57
https://exaly.com/article/85260794

1998

81 A Blind Test of Photometric RedshiftPrediction
92 citations
Astronomical Journal · 115, 1418
https://exaly.com/article/85255953

Ordered by publication year, newest first

1997

82 **Toward More Precise Photometric Redshifts: Calibration via CCD Photometry**

Astrophysical Journal · 482, L21

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83 **A2125 And Its Environs: Evidence for an X-Ray-Emitting Hierarchical Superstructure**

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