

Dr. Florian Beutler

CONTACT INFORMATION

Institute of Cosmology and Gravitation
University of Portsmouth
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RESEARCH INTERESTS

- Baryon acoustic oscillations, redshift space distortions, neutrino cosmology, perturbation theory applications to the large scale structure of the universe and primordial non-Gaussianity as a probe of inflation.

PROFESSIONAL EXPERIENCE

Since 07/2018: Permanent staff at the University of Portsmouth.

Since 01/2018: Royal Society University Research Fellowship (URF).

06/2017 - 01/2018: STFC Ernest Rutherford Fellowship, Institute of Cosmology and Gravitation, University of Portsmouth.

02/2016 - 06/2017: Research Fellow, 5 year appointment, Institute of Cosmology and Gravitation, University of Portsmouth.

10/2012 - 02/2016: Postdoctoral Fellow, 3.5 year appointment, Lawrence Berkeley National Laboratory, Berkeley, CA, USA.

EDUCATION

University of Western Australia, Perth, Australia

PhD, *Astrophysics/Cosmology* (Graduated September 2012)

- Thesis Topic: Cosmology with the 6-degree Field Galaxy Survey
- Supervisors: Associate Professor Chris Blake, Professor Lister Staveley-Smith, Professor Peter Quinn, Dr. Heath Jones
- Scholarship: IPRS/SIRF scholarship

University of Heidelberg, Heidelberg, Germany

Diploma (equiv. to Master), *Physics* (Graduated October 2008)

- Thesis Topic: Theoretical modeling of hadron production in heavy ion and elementary particle collision
- Supervisor: Professor Johanna Stachel

Bachelor, *Computer Science* (Graduated October 2008)

Graduation from secondary school, Schorndorf, Germany, July 2003 (Abitur: best student of the year).

ACADEMIC EXPERIENCE

Postdoctoral supervision

Since 2018: Line manager of postdoctoral fellow Seshadri Nadathur

Since 2018: Line manager of postdoctoral fellow Julian Bautista

2018 - 2019: Line manager of postdoctoral fellow Katarina Markovic

2018 - 2019: Line manager of postdoctoral fellow Santiago Avila

Ph.D. supervision

Since 2019: Main supervisor of Ph.D. student Jamie Donald-McCann

Since 2018: Main supervisor of Ph.D. student Minas Karamanis

2015 - 2019 Main supervisor of Ph.D. student Paul Carter

Undergraduate supervision

2014 - 2016: Co-supervision of undergraduate student Eric Aldabe

2014: Co-supervision of undergraduate student Chirag Modi

Collaboration memberships

Since 2015: Member of the [Euclid collaboration](#) - Co-lead of the galaxy clustering working group and the manager of the spectroscopic visibility mask and sample selection.

Since 2014: Member of the [DESI collaboration](#) - In 2018 I acquired a personal membership through a grant from the Royal Society, which provided access to DESI for myself, 2 PDRAs and any number of students. This personal membership helped to make the ICG in Portsmouth an institutional member of DESI, which now means that any number of PDRAs at the ICG can have access to DESI. I am a member of the institutional board, the main governing body of the DESI collaboration and I am the convener of the DESI machine learning discussion group. I am also the co-chair of the Galaxy and Quasar clustering working group.

Since 2014: Member of the [eBOSS collaboration](#) - Follow-up experiment of BOSS going to higher redshift in preparation for DESI.

2012 - 2017: Member of the Baryon Oscillation Spectroscopic Survey (BOSS) - I was a member of this collaboration until the end of the experiment in 2017. I led the final key science papers on BAO and RSD.

2009 - 2012: Member of the 6-degree Field Galaxy Survey (6dFGS)

Grants

2019: ERC starter grant (€1 328 066)

2018: Royal Society research grant (£120 000)

2018: STFC PATT travel grant for DESI observing (£3000)

2017: Royal Society enhancement award (£95 000)

Awards and Fellowships

2019: ICG Achievement award (£2000)

2018 - 2023: Royal Society University Research Fellowship (£413 000 – 661 000)

2018: Australian Bicentennial Scholarship & Fellowship Award (£1000)

2017: STFC Ernest Rutherford Fellowship (£417 000)

2017: ICG Achievement award (£2000)

2012: UWA publication award - special commendation (AU\$250)

2012: UWA Overseas Travel Award (AU\$1850)

2011: Australian Society of Astronomy (ASA) travel award (AU\$1000)

2011: Graduate Research School Travel (GRST) award (AU\$5000)

2011: Australian Society of Astronomy (ASA) meeting, best student poster prize (AU\$100)

2009 - 2012: AAO top-up scholarship (AU\$15000)

2009 - 2012: SKA top-up scholarship (AU\$18000)

2009 - 2012: International Postgraduate Research Scholarship (IPRS)

Reviewing duties

Since 2018: Proposal review for the national Fund for Scientific and Technological Development (FONDECYT) of the Chilean National Commission for Scientific and Technological Research (CONICYT)

Since 2018: Member of the major and annual review panel of the ICG

Since 2015: Referee for Physical Review D

Since 2014: Referee for JCAP

Since 2014: Referee for “Welt der Physik”

Since 2012: Referee for the Astrophysical Journal

Since 2012: Referee for MNRAS

MEDIA

- I co-organized the media release connected to the BOSS DR12 data release, see for example [this article](#).

- Combined with the publication of the BAO analysis in the 6-degree Field Galaxy Survey, I co-organized a media release, which lead to more than 100 print and online articles in about 20 countries.
- Invitation to the TED@Sydney Young talent competition, see talk online [here](#).

BENTY-FIELDS

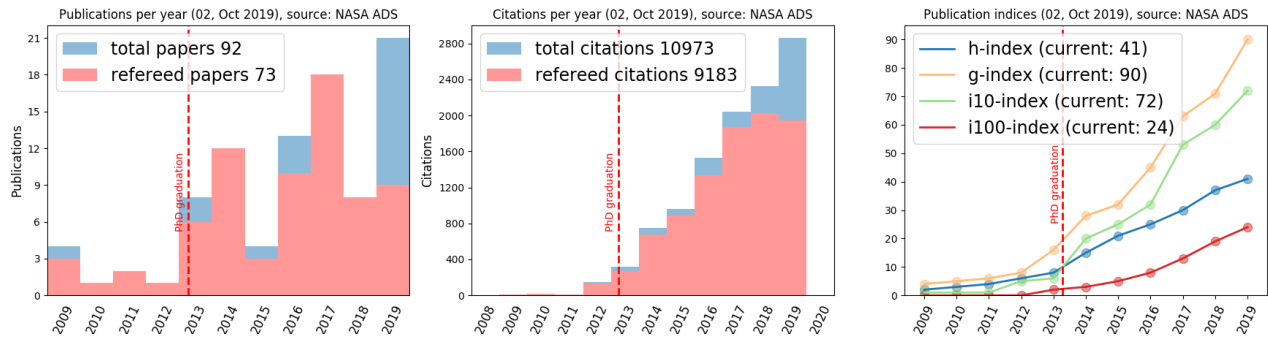
In 2015 I co-founded the academic networking website benty-fields.com and I am now its main developer. The website offers a journal club organiser, a fast arXiv search engine based on elasticsearch, a user-friendly environment to read arXiv papers and an academic job market. We now have more than 3800 users and host more than 190 journal clubs worldwide.

SKILLS

Extensive experience with several programming languages including C/C++, Python, root, HTML, openCL, openGL, \LaTeX , flask, SQL, SQLAlchemy, elasticsearch, javascript as well as parallel programming tools like MPI, openMP.

SELECTED PRESENTATIONS

1. I have been invited to give seminars and colloquia at CERN (06/2019), Durham University (06/2019), Sussex University (04/2018), John Moore University (05/2017), Stanford University (03/2017), University of Amsterdam (12/2016), EPFL Lausanne (11/2016), MPA Munich (10/2016), DAMTP Cambridge (04/2016), Queen Mary University London (03/2016), UCL London (04/2016), Fermilab (11/2015), SLAC Stanford (02/2014), CfA Boston (02/2012), LBNL Berkeley (02/2012)
2. Invited speaker for the ‘GOLD’ workshop at the Pascal Institute, Paris-Saclay (03/2020)
3. Invited speaker for the ‘Nonlinear evolution of the large scale structure of the Universe: Theory meets Expectations’ conference at the IAP, Paris (05/2016)
4. Invited speaker for the ‘Cosmic flows’ workshop at the Perimeter Institute, Waterloo, Canada (09/2015)
5. Invited lecturer for the Andean Cosmology summer school in Bogota, Columbia (4 days of lectures, 2 hours each, 07/2015)
6. Invited to a lecture series at University of British Columbia, Simon Fraser University, Herzberg Institute and University of Victoria (03/2015)
7. Invited for a review lecture on Baryon Acoustic Oscillations and Redshift Space Distortion, Santa Fe Cosmology Workshop, New Mexico (07/2014)
8. TED@Sydney Young talent competition, Sydney, Australia (05/2012) (<http://www.youtube.com/watch?v=TUorF-2e08k>)
9. PhD summary talk, AAS, Austin (01/2012)



I played a major role in the science contributing to 53 of the 92 publications, the others being collaboration papers where input was through collaboration activity including editing draft papers and contributions to producing the data sets including both management and practical work. h-index = 41 (i.e. 41 papers with > 41 citations), with 24 papers having more than 100 citations (source: NASA ads).

First author publications:

1. *Primordial Features from Linear to Nonlinear Scales*
Florian Beutler, Matteo Biagetti, Daniel Green, Anže Slosar, Benjamin Wallisch
[\[arXiv:1906.08758\]](#)
2. *First Measurement of Neutrinos in the BAO Spectrum*
Daniel Baumann, **Florian Beutler**, Raphael Flauger, Daniel Green, Mariana Vargas-Magaña, Anže Slosar, Benjamin Wallisch, Christophe Yèche
Nature Physics, 15, 465 (2019)
contribution: I lead the Fourier-space analysis, which forms the main result of this paper.
3. *Interpreting measurements of the anisotropic galaxy power spectrum*
Florian Beutler, Emanuele Castorina, Pierre Zhang
Journal of Cosmology and Astro-Particle Physics, 2019, 040 (2019)
4. *Constraining the relative velocity effect using the Baryon Oscillation Spectroscopic Survey*
Florian Beutler, Uros Seljak, Zvonimir Vlah
Monthly Notices of the Royal Astronomical Society, 470, 2723 (2017)
5. *The clustering of galaxies in the completed SDSS-III Baryon Oscillation Spectroscopic Survey: cosmological analysis of the DR12 galaxy sample*
Shadab Alam, Metin Ata, Stephen Bailey, **Florian Beutler**, Dmitry Bizyaev, Jonathan A. Blazek, Adam S. Bolton, Joel R. Brownstein +64 co-authors
Monthly Notices of the Royal Astronomical Society, 470, 2617 (2017) (**603 citations** on NASA ADS)
contribution: I contributed the Fourier-space BAO constraints, which this paper combines with the configuration-space results leading to the final BOSS DR12 BAO constraints. I also contributed the Fourier-space RSD constraints, which this paper combines with three other RSD studies of this datasets for the final BOSS DR12 RSD result.
6. *The clustering of galaxies in the completed SDSS-III Baryon Oscillation Spectroscopic Survey: Anisotropic galaxy clustering in Fourier-space*
Florian Beutler, Hee-Jong Seo, Shun Saito, Chia-Hsun Chuang, Antonio J. Cuesta, Daniel J. Eisenstein, Héctor Gil-Marín, Jan Niklas Grieb +15 co-authors
Monthly Notices of the Royal Astronomical Society, 466, 2242 (2017)
7. *The clustering of galaxies in the completed SDSS-III Baryon Oscillation Spectroscopic Survey: Baryon Acoustic Oscillations in Fourier-space*
Florian Beutler, Hee-Jong Seo, Ashley J. Ross, Patrick McDonald, Shun Saito, Adam S. Bolton, Joel R. Brownstein, Chia-Hsun Chuang +21 co-authors
Monthly Notices of the Royal Astronomical Society, 464, 3409 (2017)

8. *The BOSS-WiggleZ overlap region I: Baryon Acoustic Oscillations*
Florian Beutler, Chris Blake, Jun Koda, Felipe Marin, Hee-Jong Seo, Antonio J. Cuesta, Donald P. Schneider
[Monthly Notices of the Royal Astronomical Society](#), 455, 3230 (2016)
9. *The clustering of galaxies in the SDSS-III Baryon Oscillation Spectroscopic Survey: Signs of neutrino mass in current cosmological datasets*
Florian Beutler, Shun Saito, Joel R. Brownstein, Chia-Hsun Chuang, Antonio J. Cuesta, Will J. Percival, Ashley J. Ross, Nicholas P. Ross +7 co-authors
[Monthly Notices of the Royal Astronomical Society](#), 444, 3501 (2014) (**103 citations** on NASA ADS)
10. *The clustering of galaxies in the SDSS-III Baryon Oscillation Spectroscopic Survey: Testing gravity with redshift-space distortions using the power spectrum multipoles*
Florian Beutler, Shun Saito, Hee-Jong Seo, Jon Brinkmann, Kyle S. Dawson, Daniel J. Eisenstein, Andreu Font-Ribera, Shirley Ho +10 co-authors
[Monthly Notices of the Royal Astronomical Society](#), 443, 1065 (2014) (**213 citations** on NASA ADS)
11. *Cosmology with the 6-degree Field Galaxy Survey*
Florian Beutler
[\[arXiv:1303.3302\]](#)
12. *The 6dF Galaxy Survey: Dependence of halo occupation on stellar mass*
Florian Beutler, Chris Blake, Matthew Colless, D. Heath Jones, Lister Staveley-Smith, Lachlan Campbell, Quentin Parker, Will Saunders +1 co-author
[Monthly Notices of the Royal Astronomical Society](#), 429, 3604 (2013)
13. *The 6dF Galaxy Survey: $z \approx 0$ measurement of the growth rate and σ_8*
Florian Beutler, Chris Blake, Matthew Colless, D. Heath Jones, Lister Staveley-Smith, Gregory B. Poole, Lachlan Campbell, Quentin Parker +2 co-authors
[Monthly Notices of the Royal Astronomical Society](#), 423, 3430 (2012) (**298 citations** on NASA ADS)
14. *The 6dF Galaxy Survey: Baryon Acoustic Oscillations and the Local Hubble Constant*
Florian Beutler, Chris Blake, Matthew Colless, D. Heath Jones, Lister Staveley-Smith, Lachlan Campbell, Quentin Parker, Will Saunders +1 co-author
[Monthly Notices of the Royal Astronomical Society](#), 416, 3017 (2011) (**1145 citations** on NASA ADS)
15. *The canonical partition function for relativistic hadron gases*
F. Beutler, A. Andronic, P. Braun-Munzinger, K. Redlich, J. Stachel
[European Physical Journal C](#), 67, 439 (2010)
16. *Thermal description of hadron production in $e+e-$ collisions*
Florian Beutler
[\[arXiv:0904.2885\]](#)
17. *Statistical hadronization of heavy flavor quarks in elementary collisions: successes and failures*
A. Andronic, **F. Beutler**, P. Braun-Munzinger, K. Redlich, J. Stachel
[Physics Letters B](#), 678, 350 (2009)
contribution: This publication is based on my Diploma thesis and I contributed 95% of the science content and 50% of the paper writing.
18. *Thermal description of hadron production in $e+e-$ collisions revisited*
A. Andronic, **F. Beutler**, P. Braun-Munzinger, K. Redlich, J. Stachel
[Physics Letters B](#), 675, 312 (2009)
contribution: This publication is based on my Diploma thesis and I contributed 95% of the science content and 50% of the paper writing.

Further publications:

1. *Efficient Cosmological Analysis of the SDSS/BOSS data from the Effective Field Theory of Large-Scale Structure*
Thomas Colas, Guido D’Amico, Leonardo Senatore, Pierre Zhang, **Florian Beutler**
[\[arXiv:1909.07951\]](#)
2. *The Cosmological Analysis of the SDSS/BOSS data from the Effective Field Theory of Large-Scale Structure*
Guido D’Amico, Jérôme Gleyzes, Nickolas Kokron, Dida Markovic, Leonardo Senatore, Pierre Zhang, **Florian Beutler**, Héctor Gil-Marín
[\[arXiv:1909.05271\]](#)
3. *Perturbation theory approach to predict the covariance matrices of the galaxy power spectrum and bispectrum in redshift space*
Naonori S. Sugiyama, Shun Saito, **Florian Beutler**, Hee-Jong Seo
[\[arXiv:1908.06234\]](#)
4. *The Dark Energy Spectroscopic Instrument (DESI)*
Michael E. Levi, Lori E. Allen, Anand Raichoor, Charles Baltay, Segev BenZvi, **Florian Beutler**, Adam Bolton, Francisco J. Castander +37 co-authors
[\[arXiv:1907.10688\]](#)
5. *The Impact of the Fiducial Cosmology Assumption on BAO Cosmological Parameter Inference*
Paul Carter, **Florian Beutler**, Will J. Percival, Joseph DeRose, Risa H. Wechsler, Cheng Zhao
[\[arXiv:1906.03035\]](#)
6. *Assessing non-linear models for galaxy clustering II: model selection and forecasts for Stage IV surveys*
Benjamin Bose, Alkistis Pourtsidou, Katarina Markovič, **Florian Beutler**
[\[arXiv:1905.05122\]](#)
7. *Likelihood Non-Gaussianity in Large-Scale Structure Analyses*
ChangHoon Hahn, **Florian Beutler**, Manodeep Sinha, Andreas Berlind, Shirley Ho, David W. Hogg
Monthly Notices of the Royal Astronomical Society, 485, 2956 (2019)
8. *Overview of the DESI Legacy Imaging Surveys*
Arjun Dey, David J. Schlegel, Dustin Lang, Robert Blum, Kaylan Burleigh, Xiaohui Fan, Joseph R. Findlay, Doug Finkbeiner +152 co-authors
The Astronomical Journal, 157, 168 (2019)
9. *Redshift-weighted constraints on primordial non-Gaussianity from the clustering of the eBOSS DR14 quasars in Fourier space*
Emanuele Castorina, Nick Hand, Uros Seljak, **Florian Beutler**, Chia-Hsun Chuang, Cheng Zhao, Héctor Gil-Marín, Will J. Percival +8 co-authors
[\[arXiv:1904.08859\]](#)
10. *Inflation and Dark Energy from spectroscopy at $z > 2$*
Simone Ferraro, Michael J. Wilson, Muntazir Abidi, David Alonso, Behzad Ansarinejad, Robert Armstrong, Jacobo Alore, Arturo Avelino +135 co-authors
[\[arXiv:1903.09208\]](#)
11. *Messengers from the Early Universe: Cosmic Neutrinos and Other Light Relics*
Daniel Green, Mustafa A. Amin, Joel Meyers, Benjamin Wallisch, Kevork N. Abazajian, Muntazir Abidi, Peter Adshead, Zeeshan Ahmed +131 co-authors
[\[arXiv:1903.04763\]](#)
12. *Primordial Non-Gaussianity*
P. Daniel Meerburg, Daniel Green, Muntazir Abidi, Mustafa A. Amin, Peter Adshead, Zeeshan Ahmed, David Alonso, Behzad Ansarinejad +170 co-authors
[\[arXiv:1903.04409\]](#)

13. *Dark Matter Science in the Era of LSST*
Keith Bechtol, Alex Drlica-Wagner, Kevork N. Abazajian, Muntazir Abidi, Susmita Adhikari, Yacine Ali-Haïmoud, James Annis, Behzad Ansarinejad +172 co-authors
[\[arXiv:1903.04425\]](#)
14. *Science from an Ultra-Deep, High-Resolution Millimeter-Wave Survey*
Neelima Sehgal, Ho Nam Nguyen, Joel Meyers, Moritz Munchmeyer, Tony Mroczkowski, Luca Di Mascolo, Eric Baxter, Francis-Yan Cyr-Racine +61 co-authors
[\[arXiv:1903.03263\]](#)
15. *The clustering of the SDSS-IV extended Baryon Oscillation Spectroscopic Survey DR14 quasar sample: measuring the evolution of the growth rate using redshift space distortions between redshift 0.8 and 2.2*
Rossana Ruggeri, Will J. Percival, Hector Gil Marin, **Florian Beutler**, Eva Maria Mueller, Fangzhou Zhu, Nikhil Padmanabhan, Gong-Bo Zhao +11 co-authors
Monthly Notices of the Royal Astronomical Society, 483, 3878 (2019)
16. *A complete FFT-based decomposition formalism for the redshift-space bispectrum*
Naonori S. Sugiyama, Shun Saito, **Florian Beutler**, Hee-Jong Seo
Monthly Notices of the Royal Astronomical Society, 484, 364 (2019)
17. *The Fifteenth Data Release of the Sloan Digital Sky Surveys: First Release of MaNGA Derived Quantities, Data Visualization Tools and Stellar Library*
D. S. Aguado, Romina Ahumada, Andres Almeida, Scott F. Anderson, Brett H. Andrews, Borja Anguiano, Erik Aquino Ortiz, Alfonso Aragon-Salamanca +226 co-authors
The Astrophysical Journal Supplement Series, 240, 23 (2019)
18. *The clustering of the SDSS-IV extended Baryon Oscillation Spectroscopic Survey DR14 quasar sample: a tomographic measurement of cosmic structure growth and expansion rate based on optimal redshift weights*
Gong-Bo Zhao, Yuting Wang, Shun Saito, Héctor Gil-Marín, Will J. Percival, Dandan Wang, Chia-Hsun Chuang, Rossana Ruggeri +23 co-authors
Monthly Notices of the Royal Astronomical Society, 482, 3497 (2019)
19. *Low Redshift Baryon Acoustic Oscillation Measurement from the Reconstructed 6-degree Field Galaxy Survey*
Paul Carter, **Florian Beutler**, Will J. Percival, Chris Blake, Jun Koda, Ashley J. Ross
Monthly Notices of the Royal Astronomical Society, 481, 2371 (2018)
20. *nbodykit: an open-source, massively parallel toolkit for large-scale structure*
Nick Hand, Yu Feng, **Florian Beutler**, Yin Li, Chirag Modi, Uros Seljak, Zachary Slepian
The Astronomical Journal, 156, 160 (2018)
21. *The clustering of the SDSS-IV extended Baryon Oscillation Spectroscopic Survey DR14 quasar sample: Measuring the anisotropic Baryon Acoustic Oscillations with redshift weights*
Fangzhou Zhu, Nikhil Padmanabhan, Ashley J. Ross, Martin White, Will J. Percival, Rossana Ruggeri, Gong-bo Zhao, Dandan Wang +12 co-authors
Monthly Notices of the Royal Astronomical Society, 480, 1096 (2018)
22. *Theoretical Systematics of Future Baryon Acoustic Oscillation Surveys*
Zhejie Ding, Hee-Jong Seo, Zvonimir Vlah, Yu Feng, Marcel Schmittfull, **Florian Beutler**
Monthly Notices of the Royal Astronomical Society, 479, 1021 (2018)
23. *The clustering of galaxies in the completed SDSS-III Baryon Oscillation Spectroscopic Survey: theoretical systematics and Baryon Acoustic Oscillations in the galaxy correlation function*
Mariana Vargas-Magaña, Shirley Ho, Antonio J. Cuesta, Ross O’Connell, Ashley J. Ross, Daniel J. Eisenstein, Will J. Percival, Jan Niklas Grieb +13 co-authors
Monthly Notices of the Royal Astronomical Society, 477, 1153 (2018)
24. *The clustering of galaxies in the completed SDSS-III Baryon Oscillation Spectroscopic Survey: constraining modified gravity*
Eva-Maria Mueller, Will Percival, Eric Linder, Shadab Alam, Gong-Bo Zhao, Ariel G. Sánchez, **Florian Beutler**
Monthly Notices of the Royal Astronomical Society, 475, 2122 (2018)

25. *The Fourteenth Data Release of the Sloan Digital Sky Survey: First Spectroscopic Data from the extended Baryon Oscillation Spectroscopic Survey and from the second phase of the Apache Point Observatory Galactic Evolution Experiment*
Bela Abolfathi, D. S. Aguado, Gabriela Aguilar, Carlos Allende Prieto, Andres Almeida, Tonima Tasnim Ananna, Friedrich Anders, Scott F. Anderson +340 co-authors
The Astrophysical Journal Supplement Series, 235, 42 (2018) (**379 citations** on NASA ADS)
26. *The clustering of the SDSS-IV extended Baryon Oscillation Spectroscopic Survey DR14 quasar sample: First measurement of Baryon Acoustic Oscillations between redshift 0.8 and 2.2*
Metin Ata, Falk Baumgarten, Julian Bautista, **Florian Beutler**, Dmitry Bizyaev, Michael R. Blanton, Jonathan A. Blazek, Adam S. Bolton +55 co-authors
Monthly Notices of the Royal Astronomical Society, 473, 4773 (2018) (**115 citations** on NASA ADS)
27. *Imprints of Reionization in Galaxy Clustering*
Fabian Schmidt, **Florian Beutler**
Physical Review D, 96, 083533 (2017)
28. *Extending the modeling of the anisotropic galaxy power spectrum to $k = 0.4 \text{ hMpc}^{-1}$*
Nick Hand, Uros Seljak, **Florian Beutler**, Zvonimir Vlah
Journal of Cosmology and Astro-Particle Physics, 2017, 009 (2017)
29. *The Clustering of Galaxies in the Completed SDSS-III Baryon Oscillation Spectroscopic Survey: single-probe measurements from DR12 galaxy clustering – towards an accurate model*
Chia-Hsun Chuang, Marcos Pellejero-Ibanez, Sergio Rodríguez-Torres, Ashley J. Ross, Gong-bo Zhao, Yuting Wang, Antonio J. Cuesta, J. A. Rubiño-Martín +22 co-authors
Monthly Notices of the Royal Astronomical Society, 471, 2370 (2017)
30. *The clustering of galaxies in the completed SDSS-III Baryon Oscillation Spectroscopic Survey: On the measurement of growth rate using galaxy correlation functions*
Siddharth Satpathy, Shadab Alam, Shirley Ho, Martin White, Neta A. Bahcall, **Florian Beutler**, Joel R. Brownstein, Chia-Hsun Chuang +11 co-authors
Monthly Notices of the Royal Astronomical Society, 469, 1369 (2017)
31. *Dynamical dark energy in light of the latest observations*
Gong-Bo Zhao, Marco Raveri, Levon Pogosian, Yuting Wang, Robert G. Crittenden, Will J. Handley, Will J. Percival, **Florian Beutler** +18 co-authors
Nature Astronomy, 1, 627 (2017) (**177 citations** on NASA ADS)
32. *The clustering of galaxies in the completed SDSS-III Baryon Oscillation Spectroscopic Survey: Angular clustering tomography and its cosmological implications*
Salvador Salazar-Albornoz, Ariel G. Sanchez, Jan Niklas Grieb, Martin Crocce, Roman Scoccimarro, Shadab Alam, **Florian Beutler**, Joel R. Brownstein +12 co-authors
Monthly Notices of the Royal Astronomical Society, 468, 2938 (2017)
33. *Sloan Digital Sky Survey IV: Mapping the Milky Way, Nearby Galaxies, and the Distant Universe*
Michael R. Blanton, Matthew A. Bershady, Bela Abolfathi, Franco D. Albareti, Carlos Allende Prieto, Andres Almeida, Javier Alonso-García, Friedrich Anders +345 co-authors
The Astronomical Journal, 154, 28 (2017) (**294 citations** on NASA ADS)
34. *The Clustering of Galaxies in the Completed SDSS-III Baryon Oscillation Spectroscopic Survey: Cosmic Flows and Cosmic Web from Luminous Red Galaxies*
Metin Ata, Francisco-Shu Kitaura, Chia-Hsun Chuang, Sergio Rodríguez-Torres, Raul E. Angulo, Simone Ferraro, Hector Gil-Marín, Patrick McDonald +26 co-authors
Monthly Notices of the Royal Astronomical Society, 467, 3993 (2017)
35. *The clustering of galaxies in the completed SDSS-III Baryon Oscillation Spectroscopic Survey: Cosmological implications of the Fourier space wedges of the final sample*
Jan Niklas Grieb, Ariel G. Sánchez, Salvador Salazar-Albornoz, Román Scoccimarro, Martín Crocce, Claudio Dalla Vecchia, Francesco Montesano, Héctor Gil-Marín +20 co-authors
Monthly Notices of the Royal Astronomical Society, 467, 2085 (2017)

36. *Consistency of the growth rate in different environments with the 6dF Galaxy Survey: measurement of the void-galaxy and galaxy-galaxy correlation functions*
Ixandra Achitouv, Chris Blake, Paul Carter, Jun Koda, **Florian Beutler**
[Physical Review D](#), 95, 083502 (2017)
37. *The clustering of galaxies in the completed SDSS-III Baryon Oscillation Spectroscopic Survey: tomographic BAO analysis of DR12 combined sample in Fourier space*
Gong-Bo Zhao, Yuting Wang, Shun Saito, Dandan Wang, Ashley J. Ross, **Florian Beutler**, Jan Niklas Grieb, Chia-Hsun Chuang +20 co-authors
[Monthly Notices of the Royal Astronomical Society](#), 466, 762 (2017)
38. *The clustering of galaxies in the completed SDSS-III Baryon Oscillation Spectroscopic Survey: combining correlated Gaussian posterior distributions*
Ariel G. Sanchez, Jan Niklas Grieb, Salvador Salazar-Albornoz, Shadab Alam, **Florian Beutler**, Ashley J. Ross, Joel R. Brownstein, Chia-Hsun Chuang +12 co-authors
[Monthly Notices of the Royal Astronomical Society](#), 464, 1493 (2017)
39. *The clustering of galaxies in the completed SDSS-III Baryon Oscillation Spectroscopic Survey: cosmological implications of the configuration-space clustering wedges*
Ariel G. Sanchez, Roman Scoccimarro, Martin Crocce, Jan Niklas Grieb, Salvador Salazar-Albornoz, Claudio DallaVecchia, Martha Lippich, **Florian Beutler** +16 co-authors
[Monthly Notices of the Royal Astronomical Society](#), 464, 1640 (2017)
40. *The clustering of galaxies in the completed SDSS-III Baryon Oscillation Spectroscopic Survey: Observational systematics and baryon acoustic oscillations in the correlation function*
Ashley J. Ross, **Florian Beutler**, Chia-Hsun Chuang, Marcos Pellejero-Ibanez, Hee-Jong Seo, Mariana Vargas-Magana, Antonio J. Cuesta, Will J. Percival +22 co-authors
[Monthly Notices of the Royal Astronomical Society](#), 464, 1168 (2017)
41. *The DESI Experiment Part I: Science, Targeting, and Survey Design*
[DESI Collaboration], Amir Aghamousa, Jessica Aguilar, Steve Ahlen, Shadab Alam, Lori E. Allen, Carlos Allende Prieto, James Annis +285 co-authors
[\[arXiv:1611.00036\]](#) (**379 citations** on NASA ADS)
42. *The DESI Experiment Part II: Instrument Design*
[DESI Collaboration], Amir Aghamousa, Jessica Aguilar, Steve Ahlen, Shadab Alam, Lori E. Allen, Carlos Allende Prieto, James Annis +285 co-authors
[\[arXiv:1611.00037\]](#)
43. *The clustering of galaxies in the SDSS-III Baryon Oscillation Spectroscopic Survey: single-probe measurements from CMASS anisotropic galaxy clustering*
Chia-Hsun Chuang, Francisco Prada, Marcos Pellejero-Ibanez, **Florian Beutler**, Antonio J. Cuesta, Daniel J. Eisenstein, Stephanie Escoffier, Shirley Ho +18 co-authors
[Monthly Notices of the Royal Astronomical Society](#), 461, 3781 (2016)
44. *Modeling the reconstructed BAO in Fourier space*
Hee-Jong Seo, **Florian Beutler**, Ashley J. Ross, Shun Saito
[Monthly Notices of the Royal Astronomical Society](#), 460, 2453 (2016)
45. *The clustering of galaxies in the completed SDSS-III Baryon Oscillation Spectroscopic Survey: double-probe measurements from BOSS galaxy clustering & Planck data – towards an analysis without informative priors*
Marcos Pellejero-Ibanez, Chia-Hsun Chuang, J. A. Rubiño-Martín, Antonio J. Cuesta, Yuting Wang, Gong-bo Zhao, Ashley J. Ross, Sergio Rodríguez-Torres +23 co-authors
[\[arXiv:1607.03152\]](#)
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