MPS Research Update

May and June 2019

CONTENTS

Staff mentions in the press, public engagement

Kathy Romer held a schools outreach session on June 7th 2019, and a public talk at a community festival on June 8th 2019.

Awards and Recognitions

Jeff Hartnell has taken over as one of the two overall physics analysis coordinators for the 200-person NOvA collaboration.

Mary and John Gribbin's book *Out of the Shadow of a Giant* has been shortlisted for the British Society of History of Science biennial prize.

Dr Yuliya Kyrychko and Dr Konstantin Blyuss were awarded Letters of Gratitude by the Prydniprovsky Scientific Centre of the National Academy of Sciences of Ukraine and of the Ministry of Education and Science of Ukraine. This is the highest award that can be given by the Scientific Centre, and it recognises significant long-standing contribution to a particular branch of science. (The annual Day of Science event in Dnipro, Ukraine, 17th May 2019).

Simon Peeters was appointed rapporteur on neutrino physics in the UK Community Meeting, which discussed the input to the European Particle Physics Strategy Update.

Areas of Knowledge Exchange

Seb Oliver, Steven Duivenvoord, Adam Barrett and Edward Salakpi had a visit to Kenya with **Pedram Rowhani** (Geography) to visit AstroCast partners in Nairobi (31st May-6th June 2019). The visit was very successful with meetings with the National Drought Management Authority (NDMA), the Regional Centre for Mapping Resources for Development, the Kenya Red Cross Society and an academic from the University of Nairobi. The team returned with clear plans to pilot the implementation of our drought forecasting tools in e.g. the monthly bulletins of the NDMA.

Talks Delivered

Iacopo Vivarelli gave a talk at IDEA workshop, Bologna, see: https://agenda.infn.it/event/19360/ He also gave a talk on soft b-tagging at a collaboration meeting at CERN.

Enrico Scalas held a talk on "*Limit theorems for the non-homogeneous fractional Poisson process"*, Second Italian Meeting on Probability and Mathematical Statistics, Vietri sul Mare (SA), Italy, June 17th - 20th, 2019. (http://www.salerno2019.dipmat.unisa.it/).

Bertram Duering was invited to a mini-symposium talk at 28th Biennial Numerical Analysis Conference in Glasgow, UK.

Roger Fenn was the principal speaker at a conference in Gdansk on 16-20th June 2019.

Antony Lewis delivered talks at both a Cambridge seminar on the 10th June 2019, and CosmoGold conference in Paris, 24th June 2019.

Barry Garraway has delivered talks globally within: Benasque, Spain; Hangzhou, China; Xi'An, China (where he also gave a series of lectures); Tainan, Taiwan; and near Nizhny Novgorod, Russia.

Antonella De Santo gave a talk at *Open Colloquium*, School of Physics and Mathematics, University of Lecce, Italy, 30th May 2019. Antonella also attended and delivered a talk at *Open Staff Colloquium*, Daresbury Laboratory, UK, 13th June 2019.

Nicos Georgiou organised a workshop titled: *"Advances in last passage percolation".*
The workshop joined together researchers from Europe, Canada and the U.S. and according to comments the organisation was a tremendous success. Participants of various career levels from PhD students to Professors of probability gave talks and interacted in a meaningful way. (The workshop was funded by Nicos' EPSRC grant).

Christian Byrnes gave a talk on *"Cosmology with primordial black holes",* The nature of dark matter workshop, Nicosia, Cyprus 13th June 2019.

Antony Lewis delivered a talk on "*Effects of Dark Matter at Cosmic Dawn"*, The nature of dark matter workshop, Nicosia, Cyprus 13th June 2019.
(https://www.indico.phy.ucy.ac.cy/event/36/page/5-workshop-information).
Antony also gave a talk on *"Open Questions after Planck",* at the CosmoGold conference in Paris; and a talk at Cambridge on "*CMB lensing, delensing and correlations".*

Robert Smith was invited to talk at MIAPP workshop in Munich on the subject matter of *"Cosmological Information from nonlinear structures".*

Dr Guilio Fabbian delivered a talk on *"Modelling galaxy survey and CMB lensing cross-correlations"*, at the CosmoGold conference in Paris.

Pippa Cole delivered a speech on *"Primordial black holes and how to produce them"* at PASCOS, Manchester.

Impact

Dr Anastasia Fialkov organised a Royal Society outreach event "*Scientists Meet the Media*" held at the Science Museum, London.

Significant Research Outcomes

Jeff Hartnell et al. has released new NOvA results using antineutrinos in June. They have detected 27 electron antineutrino candidate events on a background of 10. This is a 4.4 sigma observation of electron antineutrinos appearing in a beam of muon antineutrinos, and is by far the best measurement of this oscillation in the world.

Iacopo Vivarelli has had Internal ATLAS approval on soft b tagging, which will become a public result for EPS.

Other news

Sussex hosted the first ever NOvA collaboration meeting outside the USA in June with 77 people attending in person and many more remotely.

Enrico Scalas received a grant from the Italian Istituto Nazionale di Alta Matematica "F. Severi" (INdAM, web page: https://www.altamatematica.it/en/) to visit the University of Salerno from 15th June to 15th July to present a series of lectures on "*From Markov chains to semi-Markov processes: The consequences of time change*".

Bertram Duering was a research committee member at the 6th Young Finance Scholars Conference, 13-14th June 2019, University of Sussex, see: https://www.sussex.ac.uk/business-school/yfs/documents/yfs.pdf

Antonella De Santo was one of five international panel members at the "*2019 Careers Path Q&A*" event organised by the ATLAS Early Career Scientists Board, CERN, Switzerland, 5th June 2019.

Kathy Romer, Paul Giles, Sunayana Bhargava, and David Turner went to UPenn DES meeting.

Dr Anastasia Fialkov undertook a working visit to Cambridge, UCL, and Heidelberg.

Jon Loveday participated in MIAPP workshop in Munich, 1-12th July.

"Quantum leap forward at Sussex for electric car batteries" -
. Physicists use quantum sensors to take a live image of the inside of a car battery from outside for first time.
. Breakthrough paves way for speedier development of better electric car batteries.
. New technology could help make electric car batteries more recyclable.
(see article here: http://www.sussex.ac.uk/staff/newsandevents/?id=49065?ref=email).

Grant Report

Submitted

PI/Co-I	Principal Funder	Funder Programme	Project Title	Overall Applied Amount (£)	Notes
Blyuss, Konstantin	MRC	MRC Immune-mediated inflammatory diseases: understanding common mechanisms	Role of stochastic variation in immune-mediated inflammatory disease	129,283	
De Santo	Royal Society	Apex Awards	Machine Learning and the Large Hadron Collider: The Epistemological Implications of Algorithmic Decision-Making in High Energy Physics	7,195	Co-I in Beatrice Fazi's bid (Media and Film)
Dalton, Alan	Innovate UK	Innovate - Open Grant Funding Competition: Round 3	Strain Sensor Integration for Wearables	151,534	
Dunningham, Jacob	EPSRC	EPSRC Early Career Fellowship	Graphically Accelerated Quantum Sensing: GPU accelerated simulation of quantum correlated sensors in high dimensions [External]	479,230	
Garraway, Barry	EPSRC	Int'l Centre-to-centre research collaboration, 2nd round	International centre-to-centre research collaboration: Advanced Quantum Sensor Applications	53,011	
Huber, Stephan	Leverhulme Trust	Leverhulme Trust Visiting Professorship	Visiting Professorship - Professor Shaaban Khalil	123,525	
Keller, Matthias	EPSRC	EPSRC Standard Research Grant	EPSRC Hub for Quantum Computing and Simulation	500,000	
Krueger, Peter	EPSRC	EPSRC Standard Research Grant	UK National Quantum Technology Hub in Sensors and Timing	408,949	
Krueger, Peter	Innovate UK	Innovate - Faraday Battery Challenge:	Magnetic Camera for On-board Non-destructive Testing of	250,042	

		innovation R&D, round 3	Electric Vehicle Lithium-ion		
Krueger, Peter	Innovate UK	Innovate - Faraday Battery Challenge: innovation R&D, round 3	The Fully Integrated Zero Emissions Road (FIZER)	229,470	
Krueger, Peter	Innovate UK	Innovate - Faraday Battery Challenge: innovation R&D, round 3	Printed sensors for EV battery current density imaging	25,519	
Peeters, Simon	Leverhulme Trust	Leverhulme Trust Visiting Professorship	Visiting Professorship - Professor Soo-Bong Kim	107,715	
Totero, Juan	UKRI	Route to all-optical control of neurocomputing devices for integrated machine learning applications	Route to all-optical control of neurocomputing devices for integrated machine learning applications	1,195,447	
Vivarelli	STFC		Sussex Experimental Particle Physics Capital Equipment 2019	18,000	
Wilkins, Stephen	Institute of Physics	IOP Public Engagement Grant Scheme	Guide Stars	1,000	
Wilkins, Stephen	Institute of Physics	IOP Public Engagement Grant Scheme	Sussex Curiosity Fairs	3,000	

Forecasted

Garraway, Barry	DSTL	Studentship	Ultra-cold atoms in inertial sensing: Practical issues	120,248	
Hensinger, Winnie/Harry Bastock	Royal Academy of Engineering	Fellowship	RF and microwave trapped ion quantum sensor for counter-eavesdropping, explosives detection and radar	200,216	
Krueger, Peter	EPSRC	Birmingham Quantum Hub	UK National Quantum Technology Hub in Sensors and Timing	498,979	
Keller, Matthias	EPSRC	Oxford Quantum Hub	EPSRC Hub for Quantum Computing and Simulation	500,000	
Madzvamuse, Anotida	EPSRC	GCRF - Building capacity to tackle global development challenges through mathematical sciences research	UK-Africa Postgraduate Advanced Study Institute in Mathematical Sciences (UK-APASI)	148,912	
Oliver, Seb	STFC	STFC Food Innovation Network	SIMfarm 2030	8,000	
Verdu, Jose	DSTL	Studentship	Microwave Quantum Illumination with a trapped electron.	158,860	

Awarded

De Santo	Technopolis Ltd.	Consultancy	Evaluation of the UK's Investment in CERN	11,115	
De Santo	Durham University	DU IPPP Senior Experimental Fellowships 2018-2019	Search for New Physics at the Large Hadron Collider and its Future Upgrades	7,000	
Fialkov, Anastasia	Royal Society	Research Fellowship Enhancement Award	Traces of Primordial Star Formation in the 21-cm Signal [External]	164,795	
Hensinger, Winfried	EU	H2020 - FET Flagships	Microwave driven ion Trap quantum Computing	443,863	
Oliver, Seb	STFC	Innovation Partnership Fellowship	Innovation Partnership Fellow at University of Sussex	28,535	
Salvatore, Fabrizio	STFC		GridPP5	10,000	
Simm, Nicholas	Royal Society	Research Fellowship Enhancement Award	Log-correlated Gaussian fields and symmetry classes in random matrix theory	200,000	
Wilkins, Stephen	STFC	STFC Public Engagement Spark Awards	Guide Stars	1,000	
Wilkins, Stephen	STFC	STFC Public Engagement Spark Awards	Sussex Curiosity Fairs	4,000	

Department of Mathematics. Publications deposited in SRO during May and June 2019					
To view the publication, enter the five-digit SRO ID number as http://sro.sussex.ac.uk/nnnnn					
Sussex Author	**SRO ID**	**Status**	**Author(s)**	**Output Title**	**Volume Title**
Blyuss, Konstantin	84115	Published	Blyuss, Konstantin B; Fatehi Chenar, Farzad; Tsygankova, Victoria A; Biliavska, Liudmyla O; Iutynska, Galyna O; Yemets, Alla I; Blume, Yaroslav B	RNAi-based biocontrol of wheat nematodes using natural poly-component biostimulants	Frontiers in Plant Science
Blyuss, Konstantin	84497	Published	Fatehi, Farzad; Kyrychko, Yuliya N; Blyuss, Konstantin B	Time-delayed model of autoimmune dynamics	Mathematical Biosciences and Engineering
Dahlqvist, Antoine NS	84119	Accepted	Cunden, Fabio Della; Dahlqvist, Antoine; O'Connell, Neil	Integer moments of complex Wishart matrices and Hurwitz numbers	Annales De L'institut Henri Poincaré D
Georgiou, Nicos	83932	Published	Ciech, Federico; Georgiou, Nicos	Order of the variance in the discrete Hammersley process with boundaries	Journal of Statistical Physics
Giesl, Peter A	83785	Published	Stiefenhofer, Pascal; Giesl, Peter; Wagner, Heiko	A system of inverted nonsmooth pendula: modelling an elderly person stepping over an obstacle	Nonlinear Analysis and Differential Equations

Giesl, Peter A	84406	Published	Albertsson, Sigurdur; Hafsteom, Sigurdur; Giesl, Peter; Gudmundsson, Skuli	Simplicial complex with approximate rotational symmetry: a general class of simplicial complexes	Journal of Computational and Applied Mathematics
Juma, Victor O	83965	Published	Juma, Victor	Data-driven mathematical modelling and simulation of Rho-Myosin dynamics	
Kiss, Istvan Z	83502	Published	Barnard, Rosanna C; Berthouze, Luc; Simon, Péter; Kiss, István	Epidemic threshold in pairwise models for clustered networks: closures and fast correlations	Journal of Mathematical Biology
Kyrychko, Yuliya	84497	Published	Fatehi, Farzad; Kyrychko, Yuliya N; Blyuss, Konstantin B	Time-delayed model of autoimmune dynamics	Mathematical Biosciences and Engineering
Madzvamuse, Anotida	83518	Accepted	Church, Jon Matteo; Guo, Zhenlin; Jimack, Peter K; Madzvamuse, Anotida; Promislow, Keith; Wetton, Brian; Wise, Stephen M; Yang, Fengwei	High accuracy benchmark problems for Allen-Cahn and Cahn-Hilliard dynamics	Communications in Computational Physics
Madzvamuse, Anotida	83964	Published	Krause, Marina; Wei Yang, Feng; Lindert, Mariska te; Isermann, Philipp; Schepens, Jan; Maas, Ralph J A; Eid, Khouloud; Venkataraman, Chandrasekhar; Lammerding, Jan; Madzvamuse, Anotida; and 2 other(s)	Cell migration through 3D confining pores: speed accelerations by deformation and recoil of the nucleus	Philosophical Transactions B: Biological Sciences

Melgaard, Michael	84472	Published	Guo, Z; Melgaard, M	Fractional magnetic Sobolev inequalities with two variables	Mathematical Inequalities and Applications
Morrison, George	83619	Published	Day, Stuart; Taheri, Ali	Stability and local minimality of spherical harmonic twists u = Q(|x|)x|x| -1 , positivity of second variations and conjugate points on SO(n)	The Journal of Analysis
Murphy, Laura R	83522	Published	Murphy, Laura	Mathematical studies of a mechanobiochemical model for 3D cell migration	
Robinson, Derek R	84603	Published	de Belder, Adam de; de la Torre Hernandez, Jose M; Lopez-Palop, Ramon; O'Kane, Peter; Hernandez, Felipe Hernandez; Strange, Julian; Gimeno, Federico; Cotton, James; Fernandez, Jose F Diaz; Saez, Pilar Carrillo; and 9 other(s)	A prospective randomized trial of everolimus-eluting stents versus bare-metal stents in octogenarians: the XIMA Trial (Xience or Vision Stents for the Management of Angina in the Elderly)	Journal of the American College of Cardiology
Taheri, Ali	83619	Published	Day, Stuart; Taheri, Ali	Stability and local minimality of spherical harmonic twists u = Q(|x|)x|x| -1 , positivity of second variations and conjugate points on SO(n)	The Journal of Analysis
Venkataraman, Chandrasekhar	83964	Published	Krause, Marina; Wei Yang, Feng; Lindert, Mariska te; Isermann, Philipp; Schepens, Jan; Maas, Ralph J A; Eid, Khouloud; Venkataraman, Chandrasekhar; Lammerding, Jan; Madzvamuse, Anotida; and 2 other(s)	Cell migration through 3D confining pores: speed accelerations by deformation and recoil of the nucleus	Philosophical Transactions B: Biological Sciences

Venkataraman, Chandrasekhar	84535	Published	Elliott, Charles M; Ranner, Thomas; Venkataraman, Chandrasekhar	Coupled bulk-surface free boundary problems arising from a mathematical model of receptor-ligand dynamics	SIAM Journal on Mathematical Analysis
Vysotskiy, Vladislav	83803	Accepted	Kabluchko, Zakhar; Prochno, Joscha; Vysotsky, Vladislav	Yet another note on the arithmetic-geometric mean inequality	Studia Mathematica

Department of Physics & Astronomy. Publications deposited in SRO during May and June 2019					
To view the publication, enter the five-digit SRO ID number as http://sro.sussex.ac.uk/nnnnn					
Sussex Author	**SRO ID**	**Status**	**Author(s)**	**Output Title**	**Volume Title**
Abel, Christopher	83410	Accepted	Abel, Christopher; Ayres, Nicholas; Griffith, William	Statistical sensitivity of the nEDM apparatus at PSI to n - n' oscillations	
Abel, Christopher	84230	Accepted	Abel, Christopher; Bison, Georg; Griffith, W Clark; Heil, Werner; Kirch, Klaus; Koch, Hans-Christian; Lauss, Bernhard; Mtchedlishvili, Alexander; Pototschnig, Martin; Schmidt-Wellenburg, Philipp; and 2 other(s)	PicoTesla absolute field readings with a hybrid 3He/87Rb magnetometer	EPJ direct
Ayres, Nicholas	83410	Accepted	Abel, Christopher; Ayres, Nicholas; Griffith, William	Statistical sensitivity of the nEDM apparatus at PSI to n - n' oscillations	
Ayres, Nicholas	83852	Published	Ayres, Nicholas	Data and systematic error analysis for the neutron electric dipole moment experiment at the Paul Scherrer Institute and Search for Axionlike Dark Matter	
Boland, Conor S	84479	Published	Zhang, Chuanfang (John); Park, Sang-Hoon; Seral-Ascaso, Andrés; Barwich, Sebastian; McEvoy, Niall; Boland, Conor S; Coleman, Jonathan N; Gogotsi, Yury; Nicolosi, Valeria	High capacity silicon anodes enabled by MXene viscous aqueous ink	Nature Communications

Boland, Conor S	84481	Published	Park, Sang-Hoon; King, Paul J; Tian, Ruiyuan; Boland, Conor S; Coelho, João; Zhang, Chuanfang (John); McBean, Patrick; McEvoy, Niall; Kremer, Matthias P; Daly, Dermot; and 1 other(s)	High areal capacity battery electrodes enabled by segregated nanotube networks	Nature Energy
Boland, Conor S	84483	Published	Biccai, Sonia; Boland, Conor S; O'Driscoll, Daniel P; Harvey, Andrew; Gabbett, Cian; O'Suilleabhain, Domhnall R; Griffin, Aideen J; Li, Zheling; Young, Robert J; Coleman, Jonathan N	Negative gauge factor piezoresistive composites based on polymers filled with MoS2 nanosheets	ACS Nano
Boland, Conor S	84622	Published	Hanlon, Damien; Backes, Claudia; Doherty, Evie; Cucinotta, Clotilde S; Berner, Nina C; Boland, Conor; Lee, Kangho; Harvey, Andrew; Lynch, Peter; Gholamvand, Zahra; and 15 other(s)	Liquid exfoliation of solvent-stabilized few-layer black phosphorus for applications beyond electronics	Nature Communications
Boland, Conor S	84627	Published	Paton, Keith R; Varrla, Eswaraiah; Backes, Claudia; Smith, Ronan J; Khan, Umar; O'Neill, Arlene; Boland, Conor; Lotya, Mustafa; Istrate, Oana M; King, Paul; and 18 other(s)	Scalable production of large quantities of defect-free few-layer graphene by shear exfoliation in liquids	Nature Materials
Cerri, Alessandro	84300	Published	Aad, G; Abajyan, T; Abbott, B; Abdallah, J; Abdel Khalek, S; Abdelalim, A A; Abdinov, O; Asquith, L; Bartsch, V; Cerri, A; and 9 other(s)	Observation of a new particle in the search for the Standard Model Higgs bosonwith the ATLAS detector at the LHC	Physics Letters B
De Santo, Antonella	84300	Published	Aad, G; Abajyan, T; Abbott, B; Abdallah, J; Abdel Khalek, S; Abdelalim, A A; Abdinov, O; Asquith, L; Bartsch, V; Cerri, A; and 9 other(s)	Observation of a new particle in the search for the Standard Model Higgs bosonwith the ATLAS detector at the LHC	Physics Letters B

Griffith, Clark C	83410	Accepted	Abel, Christopher; Ayres, Nicholas; Griffith, William	Statistical sensitivity of the nEDM apparatus at PSI to n - n' oscillations	
Griffith, Clark C	84230	Accepted	Abel, Christopher; Bison, Georg; Griffith, W Clark; Heil, Werner; Kirch, Klaus; Koch, Hans-Christian; Lauss, Bernhard; Mtchedlishvili, Alexander; Pototschnig, Martin; Schmidt-Wellenburg, Philipp; and 2 other(s)	PicoTesla absolute field readings with a hybrid 3He/87Rb magnetometer	EPJ direct
Hile, Samuel J	76390	Published	Hile, Samuel J; Fricke, Lukas; House, Matthew G; Preretz, Eldad; Chen, Chin Yi; Wang, Yu; Broome, Matthew; Gorman, Samuel K; Keizer, Joris G; Rahman, Rajib; and 0 other(s)	Addressable electron spin resonance using donors and donor molecules in silicos	Science Advances
Litim, Daniel F	84470	Published	Bond, Andrew D; Litim, Daniel F	Price of asymptotic safety	Physical Review Letters
Mondal, Rajesh	84378	Published	Bag, Satadru; Mondal, Rajesh; Sarkar, Prakash; Bharadwaj, Somnath; Sahni, Varun	The shape and size distribution of H II regions near the percolation transition	Monthly Notices of the Royal Astronomical Society
Peeters, Simon JM	83962	Published	Aharmim, B; Ahmed, S N; Anthony, A E; Barros, N; Beier, E W; Bellerive, A; Beltran, B; Bergevin, M; Biller, S D; Bonventre, R; and 7 other(s)	Measurement of neutron production in atmospheric neutrino interactions at the Sudbury Neutrino Observatory	Physical Review D

Salvatore, Fabrizio F	84300	Published	Aad, G; Abajyan, T; Abbott, B; Abdallah, J; Abdel Khalek, S; Abdelalim, A A; Abdinov, O; Asquith, L; Bartsch, V; Cerri, A; and 9 other(s)	Observation of a new particle in the search for the Standard Model Higgs bosonwith the ATLAS detector at the LHC	Physics Letters B
Sargent, Mark	84343	Published	Jiménez-Andrade, E F; Magnelli, B; Karim, A; Zamorani, G; Bondi, M; Schinnerer, E; Sargent, M; Romano-Díaz, E; Novak, M; Lang, P; and 10 other(s)	Radio continuum size evolution of star-forming galaxies over $0.35 < z < 2.25$	Astronomy & Astrophysics
Sargent, Mark	84344	Published	Magnelli, B; Karim, A; Staguhn, J; Kovács, A; Jiménez-Andrade, E F; Casey, C M; Zavala, J A; Schinnerer, E; Sargent, M; Aravena, M; and 3 other(s)	The IRAM/GISMO 2 mm survey in the cOSMOS field	Astrophysical Journal
Sargent, Mark	84345	Published	Puglisi, A; Daddi, E; Liu, D; Bournaud, F; Silverman, J D; Circosta, C; Calbrò, A; Aravena, M; Cibinel, Anna; Dannernauer, H; and 10 other(s)	The main sequence at $z \sim 1.3$ contains a sizable fraction of galaxies with compact star formation sizes: a new population of early post-starbursts?	Astrophysical Journal
Sargent, Mark	84346	Published	Smith, Matthew W L; Clark, Christopher J R; De Looze, Ilse; Lamperti, Isabella; Saintonge, Amélie; Wilson, Christine D; Accurso, Gioacchino; Brinks, Elias; Bureau, Martin; Chung, Eun Jung; and 11 other(s)	JINGLE, a JCMT legacy survey of dust and gas for galaxy evolution studies: II. SCUBA-2 850 μm data reduction and dust flux density catalogues	Monthly Notices of the Royal Astronomical Society
Sargent, Mark	84347	Published	Cibinel, A; Daddi, E; Sargent, M T; Le Floc'h, E; Liu, D; Bournaud, F; Oesh, P A; Amram, P; Calabrò, A; Pannella, P-A Duc M; and 2 other(s)	Early- and late-stage mergers among main sequence and starburst galaxies at $0.2 = z = 2$	Monthly Notices Of The Royal Astronomical Society

Shaw, Kate	84300	Published	Aad, G; Abajyan, T; Abbott, B; Abdallah, J; Abdel Khalek, S; Abdelalim, A A; Abdinov, O; Asquith, L; Bartsch, V; Cerri, A; and 9 other(s)	Observation of a new particle in the search for the Standard Model Higgs bosonwith the ATLAS detector at the LHC	Physics Letters B
Smith, Robert E E	84467	Published	Eggemeier, Alexander; Scoccimarro, Román; Smith, Robert	Bias loop corrections to the galaxy bispectrum	Physical Review D
Sutton, Mark R	84300	Published	Aad, G; Abajyan, T; Abbott, B; Abdallah, J; Abdel Khalek, S; Abdelalim, A A; Abdinov, O; Asquith, L; Bartsch, V; Cerri, A; and 9 other(s)	Observation of a new particle in the search for the Standard Model Higgs bosonwith the ATLAS detector at the LHC	Physics Letters B
Vivarelli, Iacopo	84300	Published	Aad, G; Abajyan, T; Abbott, B; Abdallah, J; Abdel Khalek, S; Abdelalim, A A; Abdinov, O; Asquith, L; Bartsch, V; Cerri, A; and 9 other(s)	Observation of a new particle in the search for the Standard Model Higgs bosonwith the ATLAS detector at the LHC	Physics Letters B