

Research and Knowledge Exchange Committee

Report on School Activity

Period: November 2013 to February 2014

School:	MPS
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Research related appointments :	Gibson, Antony	Laboratory Technician	06/01/2014		
	Hardiman, Michael	Research Fellow	01/11/2013		
	Raso-Barnett, Matthew	Linux System Administrator	13/12/2013		
	Chavez Barajas, Carlos A	Research Fellow In Experimental Particle Physics	11/11/2013		
Key research grants received:	P.	Thomas	Astrophysics and Cosmology - Sussex Consolidated Grant	STFC	£1,355,893
	S.	Oliver	HELP - Herschel Extragalactic Legacy Project	EU	£886,037
	M.	Tamsett	Searching for the remaining unknown neutrino oscillation parameters using the NOvA long baseline experiment	EU	£158,789
	A.	De Santo	Sussex Experimental Particle Physics (EPP) Capital Equipment 2013	STFC	£87,700
	M.	Keller	High-accuracy optical clocks with trapped ions Researcher Excellence Grant	Euro. Metro. Res. Prog.	£74,697
	D.	Porras	New Frontiers in Quantum Simulation: NewFQS	EU	£70,676
	M.	Peccianti	Route to guided TeraHertz backscattering Inspection and Analysis : THEIA	EU	£70,676
	F.	Salvatore	GridPP4 Tranche-2 YourGrid Oxford lead	STFC	£10,000
	J.	Hartnell	Bridging funds for LBNE-UK	STFC	£8,623
	W.	Griffith	Magnetic Field Uniformity and Ultracold Neutron Storage Optimization for CryoEDM	STFC	£6,064
	I.	Vivarelli	Search for sbottom and stop with the ATLAS detector at the LHC	STFC	£6,064
	A.	Cerri	STFC New Applicants Scheme Funds	STFC	£6,064
	K.	Romer	Dark Energy Survey: Y1 Observing Shift	STFC	£1,925
Total (£):					2,743,208

Applications for funding:	K	Blyuss	Model-based framework for monitoring and risk assessment of autoimmune disease	MRC	£180,946
	B	During	Discrete entropy dissipation methods for nonlinear diffusion equations	London Statistical Society	£1,025
	I	Kiss	Developing methodology for the design and implementation of a Human Papillomavirus (HPV) vaccination and screening campaign in the NW of Romania.	MRC	£138,056
	A	Madzvamuse	Global Innovative Initiative: UK-US Multi-International Collaborative Research Network in Mathematic	Brit. Council	£149,587
	E	Scalas	A Novel Tracking Method for Random Fronts and its Applications	Basque Government	£-
	A	Zarnescu	Analysis of Liquid Crystals: Bridging between length scales	EPSRC	£96,880
					£566,494
	A	Cerri	STFC New Applicants Scheme Funds	STFC	£6,000
	A	De Santo	New physics searches and Higgs coupling measurements with ATLAS - PDRF Lily Asquith	RS	£438,840
	A	De Santo	STFC Consolidated Grant Supplement	STFC	£9,360
	J	Dunningham	Moving quantum metrology toward practical applications	LEVERHULME	£45,000
	J	Elliston	Tracking Primordial Perturbations	RC 1851	£102,000
	W	Griffith	Magnetic Field Uniformity and Ultracold Neutron Storage Optimization for CryoEDM	STFC	£6,000
	J	Hartnell	Bridging funds for LBNE-UK	STFC	£8,606
	I	Iliev	Our Neighbourhood in the Universe: From the First Stars to the Present Day	PARTNERSHIP FOR ADVANCED COMPUTING IN EUROPE	£-

I	Iliev	Unveiling Dark Sectors with Large Surveys	EU	£-
J	Loveday	Relating galaxies to dark matter haloes and constraining dark energy models	RS	£44,300
S	Oliver	Electronic clinical record management (ECR) in NHS secondary care	Leeds Met	£15,750
S	Oliver	Analysis of real time datasets to predict and validate models of risk in cystic fibrosis	VERTEX PHARMACEUTICALS (SWITZERLAND) SARL	£83,749
S	Oliver	SEPNet IPS	STFC	£143,904
K	Romer	Dark Energy Survey: Y1 Observing Shift	STFC	£1,910
F	Salvatore	GridPP4 Tranche-2 YourGrid Oxford lead	STFC	£10,000
M	Sargent	The promises of the high-resolution radio sky	STFC	£175,578
G	Sinuco	Topological order and entanglement in periodically driven lattices	RC 1851	£102,000
R	Smith	Do uncertainties in galaxy formation physics degrade cosmological inferences?	STFC	£176,378
J	Verdu Galiana	The Geonium Chip. A novel quantum technology ion trap and mass spectrometry technology	EPSRC	£970,882
I	Vivarelli	Search for sbottom and stop with the ATLAS detector at the LHC	STFC	£6,000
S	Wilkins	The Role of Black Holes in Galaxy Evolution: A Critical Comparison of State of the Art Surveys and Models	RS	£11,955
S	Wilkins	RAS Undergraduate Research Bursary - Fishing for EELS (Extreme Emission Line Galaxies)	RS	£1,192
				£2,359,404
			Total (£):	2,925,898

Awards and recognitions:	<p>Dr Anotida Madzvamuse awarded the prestigious Theodore Von Kaman Fellowship by the University of Aachen</p> <p>Royal Astronomical Society Group Achievement award for the SPIRE Consortium Feb '14 (Prof Oliver is member of SPIRE consortium)</p> <p>Talitha Bromwich won 'most outstanding project' at an exhibition in Parliament (Tuesday 25 February) celebrating the UK's best undergraduate research</p> <p>Dr Ali Taheri invited as Plenary Speaker at International Workshop 'Recent Advances on Nonlinear PDE and Calculus of Variations', Feb '14</p> <p>Abimbola Abolarinwa and George Simpson were among the 10 shortlisted to give talks in the give talks at London Mathematical Society Postgraduate meeting on 15 November.</p> <p>Dr Alessia Pasquazi & Dr Marco Peccianti appointed committee member of Photonics North 2014 Conference</p> <p>Dr Alessia Pasquazi appointed topical editor of Scientific Report, Nature Publishing Group</p>
Areas of Knowledge Exchange:	<p>Audit of KE activity in both departments ongoing 9 Specific Impact activities identified in Mathematics > 5 identified in Physics</p> <p>Visit from AMEX Technologies</p>
Key activities (not covered above):	<p>Submission of Data Analysis and Computational modelling Centre bid to Sussex Research Strategic Competition</p> <p>Jose Verdu Galiana - The Geonium Chip: A revolutionary high-end mass spectromete was awarded £17, 787 from the RDF</p> <p>School Research & Knowledge Exchange Review for MPS 11/02/14</p> <p>NOVA experiment (Dr Jeff Hartnell et al.) detects first neutrinos</p> <p>Collaboration building on quantum technologies centres etc.</p>

Name:	Seb Oliver	School:	MPS
		Date:	10 th March 2014