

Research and Knowledge Exchange Committee

Third Report on School Research Activity for 2016/17

(Please append to this report a listing of all applications for funding made since 01 Feb 2017)

School:	Mathematical & Physical Sciences
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Part 1: Research output

		2016 Total	2017 to date
Peer-reviewed	Authored book	2	1
	Chapters	3	0
	Journal article	346	39
	Edited book	1	0
	Conference contribution	6	2
	Monograph	0	0
	Other	18	9
Total		376	51
		Number	
Non peer-reviewed (where known)	Authored books	0	0
	Chapters	0	0
	Journal article	0	0
	Book reviews	0	0
		Number	
Conferences hosted		8	4
4* Publications produced (graded 4* by at least 2 people)		15	0

Part 2: Activity during the period 01 Feb 2017 to 30 Apr 2017

Research related appointments:	<p>02 Feb – Dr Vladislav Vyotskiy joins Mathematics; research interests include probability theory and stochastic processes.</p> <p>23 Feb – Prof Kathy Romer and Dr Stephen Wilkins both awarded Asa Briggs Visiting Fellowships; Stephen also appointed as University's Interim Director of Research Staff Development, beginning 01 March.</p>
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	<p>Leo Rojas-Amaya appointed as new Linux Technical Analyst to provide research computing support for MPS, primarily EPP (75% funded by EPP).</p> <p>09 March – Brendan Murphy appointed as new Media Relations Manager for MPS</p> <p>27 April – Dr Yuliya Kyrychko promoted to Reader</p>		
Details of key research grants received (i.e. in top decile of all research grants received over last 3 academic years):	<p>Top decile over last 3Y, Physics > £1.3M, Maths > £258K.</p> <p>No. of Awards Feb to April 2017, within the top decile = 0 both Depts.</p> <p>But ERC consolidator of Marco Peccianti £1.4M (listed as Nov 16)</p>		
	<table> <tr> <td>Total (£):</td><td>£450k</td></tr> </table>	Total (£):	£450k
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Highlighted awards and recognitions:	<p>16 March – Prof Antonella De Santo wins the Royal Society Wolfson Research Merit Award</p> <p>27 April – TPP Post Doc Basem El-Menoufi wins Kandula Sastry Thesis Award 2017 in recognition of an outstanding PhD thesis in Physics.</p>
Highlighted areas of Knowledge Exchange:	<p>Of the total of £450k of recent accepted awards (Feb-May) more than half (£250k) is for fairly direct socio-economic impact (Verdu - "QGMS: Quantum Geonium Mass Sensor - A route to market feasibility", Institutional - "STFC Impact Acceleration Account 2017", Baraugh "Viridian Logic: Optimising natural habitat regeneration to maximize benefits to both people and nature", Dalton "Nanoparticle Barcoding for Textile Anti-Counterfeiting Applications"). In addition (not included in £250k) Porras grant of £142k which is "QUSON: Quantum Sensing with Quantum Optical Networks". I think this is a real pivotal moment, I can't imagine we've ever had as much funding coming in for socio-economic impact in a single quarter, nor ever has it exceeded the regular curiosity driven research.</p> <p>Other awards in impact are "forecasted", including Asquith Science on the Buses with STFC and Dalton "Functional Nanostructured Rubber Composites" with Alliance Rubber</p>

Key activities (not covered by the above categories):	<p>STFC has awarded us funding("forecasted") to establish DISCnet: the Data Intensive Science Centre for doctoral training in SEPnet. This is the first CDT in the science areas at Sussex. DISCnet is multi-institutional co-led by Soton and Sussex. DISCnet will initially have 22 core PhD students builds but with more expected to join as non-core. A novel aspect is that students will undertake 6 month non-University placements e.g. in industry</p> <p>16 March – Department hosts three members of BEIS to meet with Early Career Research Fellows; reciprocal visit as part of the Royal Society Pairing Scheme in which Lily Asquith took part in November 2016.</p> <p>3-4 April – Prof Anotida Madvamuse hosts the biannual meeting of the Commission for Developing Countries.</p> <p>20 April – Annual MPS PGR research day held</p> <p>27 April – Dr Lily Asquith hosts workshop as part of the ATLAS Boosted Object Tagging series, which takes the novel form of a 'hackathon'; ATLAS physicists (student and expert) from Denmark, Germany, Japan, South Africa, Sweden, Switzerland, USA and the UK attend.</p>
Any other issues:	Refurbishment of the Dalton labs is now complete and significant grant income is already appearing. Work on the Kruger labs (in the "accelerator building") is proceeding apace, with completion anticipated on September 1st.
Bullet point key activities to be reported to Senate (maximum of 4):	<p>Prof Antonella De Santo wins the Royal Society Wolfson Research Merit Award</p> <p>>£250k in awards supporting socio-economic impact work.</p> <p>STFC has award funding to establish DISCnet: the Data Intensive Science Centre for doctoral training in SEPnet. This is the first CDT in the science areas at Sussex. DISCnet is multi-institutional co-led by Soton and Sussex.</p> <p>ERC consolidator grant to Marco Peccianti £1.4M</p>
reviews of your schools' research centres	No Research Centres in our School

Name:	Seb Oliver	School:	MPS
		Date:	11-May-2017