

Third SEPnet Summer Programme
**Condensed Matter Physics in the City
 & TEMM 2012**
 June 11-29, 2012 London

Week 1 – June 11-15	Superconductivity and Novel Phases of Matter	
		Bedford square
<i>Monday, June 11</i>		
9:00-10:00	coffee	
10:00-11:00	M.Sigrist – “Aspects of topology and symmetry in unconventional SCs”	
11:00-12:00	discussion	
12:00-12:30	A.Boothroyd – “Mag. fluctuations and supercond. in iron-based SCs”	
12:30-14:00	lunch	
14:00-15:00	P.Coleman – “Giant Ising Anisotropy and Hysteric Order in URu ₂ Si ₂ ”	
15:00-16:00	discussion	
16:00-16:30	tea	
16:30-17:00	C.Setty – “Iron Based superconductors”	
17:00-18:30	discussion / breakup time	
18:30:00	self-organised pub/dinner	
<i>Tuesday, June 12</i>		Bedford square
9:00-10:00	coffee	
10:00-11:00	J.C.Davis – “Anisotropic Energy Gaps of Iron-based Superconductivity from Intra-band Quasiparticle Interference”	
11:00-12:00	discussion	
12:00-12:30	W.Wu – “Ab initio modelling of mag. and el. Struct. of Fe-based SC, LiFeAs and FeSe”	
12:30-14:00	lunch	
14:00-15:00	G.Gervais – “Quantum Matter On-a-chip”	
15:00-16:00	discussion	
16:00-16:30	tea	
16:30-17:00	G.Conduit – “Modelling the magnetores. of highly disordered SC films”	
17:00-18:00	discussion / breakup time	
18:30:00	Public Lecture at QMUL (P.Coleman and J.Schmalian)	
	<i>[please register for the event on the website]</i>	

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<i>Wednesday, June 13</i>	Bedford square
9:00-10:00	coffee
10:00-11:00	J.Schmalian – “tba”
11:00-12:00	discussion
12:00-12:30	P.Brydon – “ <i>Topol. protected 0-en. edge states of noncentrosymm. SC</i> ”
12:30-13:00	D.Edwards – “Analytical and numer. results for a simple fermion-boson model related to t-J-like models”
13:00-14:00	lunch
14:00-15:00	D.Morr – “Current eigenmodes, imaging and correl. effects in nanoscopic quantum networks”
15:00-16:00	discussion
16:00-16:30	tea
16:30-17:00	J.Robinson – “Spin-Triplet proximity effects in SC/ferromagnet devices”
17:00-18:30	discussion / breakup time
18:30:00	self-organised pub/dinner
<i>Thursday, June 14</i>	A.Andreev – “Hydrodynamic description of resistivity in str. corr. el. sys.” (at 10:00am in the Ramsay Lecture Theatre at UCL)
<i>Friday, June 15</i>	Rutherford Appleton Laboratory, TS-2 building, room CR16-17
9:30-10:30	coffee
10:30-11:00	S.Langridge – “Imaging the mesoscopic magnetic phase separation in an intermetallic Mott insulator”
11:00-11:30	P.Niklowitz – “Magnetic excitations near the paramag. to hidden-order transition in URu2Si2”
11:30-12:00	A.Coldea – “Probing the Fermi surface of iron based SC with high mag. fields”
12:00-14:00	lunch
14:00-14:30	J.R.Cooper – “Magnetic susceptibility and heat capacity of two hole-doped high temperature SCs: $\text{YBa}_2\text{Cu}_3\text{O}_{6+x}$ and $\text{Ba}_{1-x}\text{K}_x\text{Fe}_2\text{As}_2$ ”
14:30-15:00	C.Webster – “NbSi nanowires for a current standard based on quantum phase-slip”
15:00-16:00	J.Annett – “Optical Dichroism in a Multiband Chiral P-wave SC”
16:00-17:30	tea and posters

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Week 2 – June 18-22	Topological insulators and Entangled States of Matter
<i>Monday, June 18</i>	Bedford square
<i>Tuesday, June 19</i>	Bedford square
9:00-10:00	coffee
10:00-11:00	J.Moore – “Topo. insulators: overview and magnetoelectric properties”
11:00-12:00	discussion
12:00-12:30	G.Aeppli – “tba”
12:30-14:00	lunch
14:00-15:00	S.Simon – “Status and Outlook for Quantum Hall Interferometry”
15:00-16:00	discussion
16:00-16:30	tea
16:30-17:00	A.Akhmerov – “tba”
17:00-18:30	discussion / breakup time
18:30:00	self-organised pub/dinner

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Week 2 – June 18-22	Topological insulators and Entangled States of Matter
<i>Wednesday, June 20</i>	Ramsay lecture theatre (UCL Chemistry) [1] / Bedford square [2]
[1] 9:00-10:00	coffee
[1] 10:00-11:00	S.Sachdev – “Quantum entanglement and the phases of matter”
[1] 11:00-12:00	discussion
[1] 12:00-12:30	L.Amico – “tba”
12:30-14:00	lunch
[2] 14:00-15:00	B.Beri – “Simulation and detection strategies for fractional topo. Ins.”
[2] 15:00-16:00	discussion
[2] 16:00-16:30	tea
[2] 16:30-17:00	tbc
[2] 17:00-18:30	discussion / breakup time
18:30:00	self-organised pub/dinner
<i>Thursday, June 21</i>	Royal Holloway, Department of Physics, room T125
9:30-10:30	coffee in T118
10:30-11:00	F.Burnell – “tba”
11:00-11:30	D.Kovrizhin – “tba”
11:30-12:00	M.Hohenadler – “Quant. Spin Models from Flux Tubes in Corr. Topo. Ins.”
12:00-14:00	lunch and posters in T118
14:00-15:00	J.Moore – “Transport and strong correlations in topological insulators”
15:00-15:30	G.Moeller – “Fractional Chern Insulators seen in the Wannier basis”
15:30-16:30	tea and posters in T118
16:30-17:00	J.Betouras – “Nonlinear magnetization of graphene”

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Week 3 – June 25-29	Disorder and Magnetism
<i>Monday, June 25</i>	Basement Lecture Theatre B17, 1-19 Torrington Place, WC1E 7HB
9:00-10:00	coffee
10:00-11:00	P.Chandra – “Emerging Criticality in a 2D Frustrated Heisenberg AFM”
11:00-12:00	discussion
12:00-12:30	J.Bhaseen – “A Path Integral Approach for Geom. Frus. AFMs”
12:30-14:00	lunch
14:00-15:00	S.Blundell – “A muon's-eye view of frustrated magnets”
15:00-16:00	discussion
16:00-16:30	tea
16:30-17:00	M.Lees – “Muon studies of magnetism in Ho _{2-x} Y _x Ti ₂ O ₇ ”
17:00-18:30	discussion / breakup time
18:30:00	self-organised pub/dinner
<i>Tuesday, June 26</i>	Basement Lecture Theatre B17, 1-19 Torrington Place, WC1E 7HB
9:00-10:00	coffee
10:00-11:00	R.Moessner – “Extended magnetic degrees of freedom”
11:00-12:00	discussion
12:00-12:30	C.Hooley – “The fate of vortices in O(2)xO(M) models of phase competition”
12:30-14:00	lunch
14:00-15:00	V.Oganesyan – “tba”
15:00-16:00	discussion
16:00-16:30	tea
16:30-17:00	S.Grigera – “Unconventional Mag. Processes and Thermal Runaway in Spin-Ice”
17:00-18:30	discussion / breakup time
18:30:00	self-organised pub/dinner

