Physics 598 PTD
Physics of two-dimensionsal systems
Fall 2009

Tentative lecture syllabus for second half of course

Lecture	Date	Topic
16	Mon 19 Oct	The quantum Hall effect: General considerations
17	Wed 21 Oct	The integral quantum Hall effect: Topological considerations and edge states
18	Mon 26 Oct	The fractional quantum Hall effect: Laughlin wave function, fractional charge and statistics
19	Wed 28 Oct	Composite fermions: Experimental evidence for fractional charge and statistics
20	Mon 2 Nov	Miscellaneous topics in the integral and fractional QHE
21	Wed 4 Nov	Graphene I: Band structure, Dirac fermions
22	Mon 9 Nov	Graphene II: Quantum Hall effect
23	Wed 11 Nov	Graphene III: Impurities and transport
24	Mon 16 Nov	Topological quantum computing: The general idea
25	Wed 18 Nov	Exactly soluble models
26	Mon 30 Nov*	The $\nu = 5/2$ quantum Hall state
27	Wed 2 Dec	p + ip Fermi superfluids
28	Mon 7 Dec	Open for optional topic
29	Wed 9 Dec	Summary and overview

*will need to be rescheduled, probably before Thanksgiving week.