

**BOULDER 2003 SUMMER SCHOOL: FRONTIERS IN MAGNETISM
LIST OF LECTURERS, DATES AND TOPICS**

Lecturer	T/X	Affiliation	Dates	Topic
Frances Hellman fhellman@ucsd.edu	X	UCSD	6/30 - 7/3	Fundamentals of Experimental Magnetism
B. Sriram Shastry bss@physics.iisc.ernet.in	T	IIS Bangalore	6/30 - 7/3	The Microscopic Basis of Magnetism
Richard Scalettar rts@watson.ucdavis.edu	T	UC Davis	6/30 - 7/3	Computational Quantum Magnetism
Daniel Arovas (O) darovas@ucsd.edu	T	UCSD	6/30 - 7/2	A Quantum Mechanic's Toolbox for Magnetism
Stuart Parkin parkin@almaden.ibm.com	X	IBM Almaden	7/7 - 7/10	Spintronics
Olle Heinonen olle.g.heinonen@seagate.com	T	Seagate Technology	7/7 - 7/10	Computational Applied Magnetism
Allan MacDonald macd@physics.utexas.edu	T	UT Austin	7/7 - 7/10	Semiconductor Spintronics
Subir Sachdev subir.sachdev@yale.edu	T	Yale	7/8 - 7/14	Quantum Criticality in Magnetic Systems
Claire Lhuillier lhuillier@lptl.jussieu.fr	T	LPTL Jussieu	7/9 - 7/14	Frustrated Magnets
Harry Suhl hsuhl@ucsd.edu	T	UCSD	7/11 - 7/16	Modern Micromagnetism
Daniel Ralph ralph@ccmr.cornell.edu	X	Cornell	7/11 - 7/16	Nanomagnets
Daniel Cox cox@rilke.ucdavis.edu	T	UC Davis	7/14 - 7/16	Quantum Impurity Problems
Brian Maple bmaple@ucsd.edu	X	UCSD	7/15 - 7/18	Magnetic Impurities in Metals
Anupam Garg (O) agarg@nwu.edu	T	Northwestern	7/17 - 7/18	Spin Semiclassics
Michael Coey jcoey@tcd.ie	X	Trinity College Dublin	7/18 - 7/25	Oxide and Semiconductor Magnetism
Nicola Spaldin (O) nicola@mrl.ucsb.edu	T	UCSB	7/21 - 7/23	Electronic Structure Methods for Magnetic Materials
Yuri Suzuki suzuki@ccmr.cornell.edu	X	Cornell	7/21 - 7/25	Fabricated Magnetic Structures
Andrew Millis millis@phys.columbia.edu	T	Columbia	7/21 - 7/25	Magnetic Oxides
Wolfgang Wernsdorfer wernsdor@grenoble.cnrs.fr	X	CNRS Grenoble	7/22 - 7/25	Molecular Magnets

**Boulder 2003 Summer School: Frontiers in Magnetism
Schedule of Lectures and Events**

Week 1 : June 30 - July 6

Monday, June 30

Time	Event	Presenter
9:00 - 9:30	Welcoming Remarks	Organizers
9:30 - 10:45	<i>Fundamentals of Experimental Magnetism I</i>	Hellman
10:45 - 11:00	Break	
11:00 - 12:15	<i>Microscopic Basis of Magnetism I</i>	Shastry
3:15 - 4:30	<i>Computational Quantum Magnetism I</i>	Scalettar
4:30 - 5:30	Discussion	
7:00 - 9:00	Tutorial: <i>Quantum Mechanic's Toolbox I</i>	Arovas

Tuesday, July 1

9:00 - 10:15	<i>Fundamentals of Experimental Magnetism II</i>	Hellman
10:15 - 10:45	Break	
10:45 - 12:00	<i>Computational Quantum Magnetism II</i>	Scalettar
3:15 - 4:30	<i>Microscopic Basis of Magnetism II</i>	Shastry
4:30 - 5:30	Discussion	
7:00 - 9:00	Poster Session	

Wednesday, July 2

9:00 - 10:15	<i>Fundamentals of Experimental Magnetism III</i>	Hellman
10:15 - 10:45	Break	
10:45 - 12:00	<i>Microscopic Basis of Magnetism III</i>	Shastry
2:00 - 3:15	Tutorial: <i>Quantum Mechanic's Toolbox II</i>	Arovas
3:30 - 5:30	Discussion	
7:30 - 8:30	<i>Magnets: Science, Technology, and "Magic Tricks"</i> (Public Lecture)	Hellman

Thursday, July 3

9:00 - 10:15	<i>Microscopic Basis of Magnetism IV</i>	Shastry
10:15 - 10:45	Break	
10:45 - 12:00	<i>Fundamentals of Magnetism IV</i>	Hellman
2:45 - 4:00	<i>Computational Quantum Magnetism III</i>	Scalettar
4:00 - 5:00	Discussion	
5:00 -	School BBQ (Kittredge Pond)	

Friday, July 4

Independence Day: No Lectures Scheduled

Week 2 : July 7 - July 11

Monday, July 7

Time	Event	Presenter
9:00 - 10:15	<i>Spintronics I</i>	Parkin
10:15 - 10:45	Break	
10:45 - 12:00	<i>Computational Applied Magnetism I</i>	Heinonen
2:00 - 3:15	Student Seminars I (G131)	
3:15 - 4:30	<i>Semiconductor Spintronics I</i>	MacDonald
4:30 - 5:30	Discussion	
7:00 - 9:00	Poster Session	

Tuesday, July 8

9:00 - 10:15	<i>Computational Applied Magnetism II</i>	Heinonen
10:15 - 10:45	Break	
10:45 - 12:00	<i>Spintronics II</i>	Parkin
3:15 - 4:30	<i>Quantum Criticality in Magnetic Systems I</i>	Sachdev
5:00 -	Cookout at Flagstaff Mountain	

Wednesday, July 9

9:00 - 10:15	<i>Quantum Criticality in Magnetic Systems II</i>	Sachdev
10:15 - 10:45	Break	
10:45 - 12:00	<i>Spintronics III</i>	Parkin
2:00 - 3:15	<i>Semiconductor Spintronics II</i>	MacDonald
3:15 - 4:30	<i>Frustrated Magnets I</i>	Lhuillier
4:30 - 5:30	Discussion	
7:00 - 9:00	Poster Session	

Thursday, July 10

9:00 - 10:15	<i>Semiconductor Spintronics III</i>	MacDonald
10:15 - 10:45	Break	
10:45 - 12:00	<i>Frustrated Magnets II</i>	Lhuillier
3:15 - 4:30	<i>Computational Applied Magnetism III</i>	Heinonen
4:30 - 5:30	Discussion	
7:30 - 8:30	Public Lecture	Parkin

Friday July, 11

9:00 - 10:15	<i>Quantum Criticality in Magnetic Systems III</i>	Sachdev
10:15 - 10:45	Break	
10:45 - 12:00	<i>Modern Micromagnetism I</i>	Suhl
2:45 - 4:00	<i>Nanomagnets I</i>	Ralph
4:00 - 5:00	Discussion	
5:00 -	School BBQ (Kittredge Pond)	

Week 3 : July 14 - July 18

Monday, July 14

Time	Event	Presenter
9:00 - 10:15	<i>Quantum Criticality in Magnetic Systems IV</i>	Sachdev
10:15 - 10:45	Break	
10:45 - 12:00	<i>Frustrated Magnets III</i>	Lhuillier
2:00 - 3:15	<i>Quantum Impurity Problems I</i>	Cox
3:15 - 4:30	<i>Modern Micromagnetism II</i>	Suhl
7:30 - 8:45	Student Seminars II (G131)	

Tuesday, July 15

9:00 - 10:15	<i>Quantum Impurity Problems II</i>	Cox
10:15 - 10:45	Break	
10:45 - 12:00	<i>Magnetic Impurities in Metals I</i>	Maple
2:30 - 3:45	<i>Nanomagnets II</i>	Ralph
4:00 - 5:30	Discussion	
7:00 - 9:00	Poster Session	

Wednesday, July 16

9:00 - 10:15	<i>Quantum Impurity Problems III</i>	Cox
10:15 - 10:45	Break	
10:45 - 12:00	<i>Modern Micromagnetism III</i>	Suhl
2:30 - 3:45	<i>Nanomagnets III</i>	Ralph
4:00 - 5:30	Discussion	
7:00 - 9:00	Poster Session	

Thursday, July 17

9:00 - 10:15	<i>Magnetic Impurities in Metals II</i>	Maple
10:15 - 10:45	Break	
10:45 - 12:00	<i>Spin Semiclassics I</i>	Garg
1:30 - 3:30	Tour of NIST Laboratories	
2:00 - 4:00	Bosonization Tutorial	Arovas
7:30 - 8:45	Student Seminars III (G131)	

Friday July, 18

9:00 - 10:15	<i>Magnetic Impurities in Metals III</i>	Maple
10:15 - 10:45	Break	
10:45 - 12:00	<i>Spin Semiclassics II</i>	Garg
2:45 - 4:00	<i>Oxide and Semiconductor Magnetism I</i>	Coey
4:00 - 5:00	Discussion	
5:00 -	School BBQ (Kittredge Pond)	

Week 4 : July 21 - July 25		
Monday, July 21		
Time	Event	Presenter
9:00 - 10:15	<i>Electronic Structure Methods I</i>	Spaldin
10:15 - 10:45	Break	
10:45 - 12:00	<i>Theory of Magnetic Oxides I</i>	Millis
2:00 - 3:15	<i>Fabricated Magnetic Structures I</i>	Suzuki
7:30 - 8:45	Student Seminars IV (G131)	
Tuesday, July 22		
9:00 - 10:15	Theory Discussion	Arovas
10:15 - 10:45	Break	
10:45 - 12:00	<i>Electronic Structure Methods II</i>	Spaldin
3:15 - 4:30	<i>Oxide and Semiconductor Magnetism II</i>	Coey
4:30 - 5:30	Discussion	
7:00 - 9:00	Poster Session	
Wednesday, July 23		
9:00 - 10:15	<i>Oxide and Semiconductor Magnetism III</i>	Coey
10:15 - 10:45	Break	
10:45 - 11:30	<i>Photoemission of CMR Materials</i>	Dessau
11:30 - 12:30	Tour of Dessau lab	
2:00 - 3:15	<i>Theory of Magnetic Oxides II</i>	Millis
3:30 - 5:30	Discussion	
Thursday, July 24		
9:00 - 10:15	<i>Theory of Magnetic Oxides III</i>	Millis
10:15 - 10:45	Break	
10:45 - 12:00	<i>Fabricated Magnetic Structures II</i>	Suzuki
3:00 - 5:00	Discussion	
Friday July, 25		
9:00 - 10:15	<i>Theory of Magnetic Oxides IV</i>	Millis
10:15 - 10:45	Break	
10:45 - 12:00	<i>Fabricated Magnetic Structures III</i>	Suzuki
3:00 - 5:00	Discussion	
5:00 -	School BBQ (Kittredge Pond)	