2017 Boulder School for Condensed Matter and Materials Physics

Frustrated and Disordered Systems

July 3 – July 28, 2017

Detailed Schedule *All lectures are in Duane Physics Room G130*

Week 1, July 3 – 7

Sunday, July 2nd

6:30pm – 8:30	**Registration mixer with refreshments** WeatherTech Café in the C4C ***Beer and Wine Will Be Served***

Monday, July 3rd

8:30 – 9:00	**Leo Radzihovsky** ***Welcome and School Introduction***
9:00 – 10:30	**G. Tarjus** ***An Overview of the Glass Transition I***
10:30 – 11:00	Coffee Break
11:00 – 12:30	**C. Moore** ***Introduction to Computational Complexity; Belief Propagation and Its Applications I***
12:30 – 13:45	Lunch
14:00 – 15:30	**G. Biroli** ***Mean-field Theory of Glasses I***
15:30 – 16:30	**Participant Introductions**

Tuesday, July 4th

10:00 – 11:00	**Festive Brunch**
11:00 – 12:30	**C. Moore** ***Introduction to Computational Complexity; Belief Propagation and Its Applications II***
12:30 – 14:00	**G. Biroli** ***Mean-field Theory of Glasses II***
Evening	**Independence Day Celebration**

Wednesday, July 5th

9:00 – 10:30	**G. Tarjus** ***An Overview of the Glass Transition II***
10:30 – 11:00	Coffee Break
11:00 – 12:30	**C. Moore** ***Intro to Computational Complexity; Belief Propagation and Its Applications III***
12:30 – 13:45	Lunch
14:00 – 15:30	**G. Biroli** ***Mean-field Theory of Glasses III***
15:30 – 15:45	Coffee Break
15:45 – 17:15	**G. Tarjus** ***An Overview of the Glass Transition III***

Thursday, July 6th

9:00 – 10:30	**H. Cohn** ***The Mathematical Packing Problem I***
10:30 – 11:00	Coffee Break
11:00 – 12:30	**C. Moore** ***Intro to Computational Complexity; Belief Propagation and Its Applications IV***
12:30 – 13:45	Lunch
14:00 – 15:30	**G. Biroli** ***Mean-field Theory of Glasses IV***
18:30 – 18:55	**Poster Talks I** ***Duane G130***
19:00 – 22:00	**Poster Session I** ***11th Floor Commons Room***

Friday, July 7th

9:00 – 10:30	**H. Cohn** ***The Mathematical Packing Problem II***
10:30 – 11:00	Coffee Break
11:00 – 12:30	**L. Berthier** ***Numerical Simulations I***
12:30 – 13:45	Lunch
14:00 – 15:30	**G. Semerjian** ***Cavity Method and Diluted Models I***
19:00 – 21:30	**Catered dinner** ***11th Floor Commons Room***

Week 2, July 10 – 14

Monday, July 10th

9:00 – 10:30	**G. Semerjian**
	Cavity Method and Diluted Models II
10:30 – 11:00	Coffee Break
11:00 – 12:30	**L. Berthier**
	Numerical Simulations II
12:30 – 13:45	Lunch
14:00 – 15:30	**F. Krzakala**
	Compressed Sensing, Neural Networks, Machine Learning I
19:00 – 20:00	**Public Lecture: Lisa Manning**
	A body made of flexible glass, Duane Physics G1B30

Tuesday, July 11th

9:00 – 10:30	**F. Krzakala**
	Compressed Sensing, Neural Networks, Machine Learning II
10:30 – 11:00	Coffee Break
11:00 – 12:30	**L. Berthier**
	Numerical Simulations III
12:30 – 13:45	Lunch
14:00 – 15:30	**L. Manning**
	Glassy Tissue Biology
18:00 – 20:00	**Dessert on Flagstaff Mountain**
	Busses leave south of C4C at 6pm

Wednesday, July 12th

9:00 – 10:30	**G. Semerjian**
	Cavity Method and Diluted Models III
10:30 – 11:00	Coffee Break
11:00 – 12:30	**M. Ediger**
	Atomic and Molecular Glasses I
12:30 – 13:45	Lunch
14:00 – 15:30	**L. Cugliandolo**

Dynamics of Disordered Systems I

Thursday, July 13th

9:00 – 10:30	**F. Krzakala** ***Compressed Sensing, Neural Networks, Machine Learning III***
10:30 – 11:00	Coffee Break
11:00 – 12:30	**M. Ediger** ***Atomic and Molecular Glasses II***
12:30 – 13:45	Lunch
14:00 – 15:30	**L. Cugliandolo** ***Dynamics of Disordered Systems II***
18:30 – 18:55	**Poster Talks II** ***Duane G130***
19:00 – 22:00	**Poster Session II** ***11th Floor Commons Room***

Friday, July 14th

9:00 – 10:30	**F. Krzakala** ***Compressed Sensing, Neural Networks, Machine Learning IV***
10:30 – 11:00	Coffee Break
11:00 – 12:30	**M. Ediger** ***Atomic and Molecular Glasses III***
12:30 – 13:45	Lunch
14:00 – 15:30	**L. Cugliandolo** ***Dynamics of Disordered Systems III***

Week 3, July 17 – 21

Monday, July 17th

9:00 – 10:30	**L. Cugliandolo**
	Dynamics of Disordered Systems IV
10:30 – 11:00	Coffee Break
11:00 – 12:30	**D. Reichman**
	Mode-Coupling Theory of Glasses I
12:30 – 13:45	Lunch
14:00 – 15:30	**F. Zamponi**
	Tutorial: Relating Spins and Particles I

Tuesday, July 18th

9:00 – 10:30	**D. Reichman**
	Mode-Coupling Theory of Glasses II
10:30 – 11:00	Coffee Break
11:00 – 12:30	**F. Zamponi**
	Tutorial: Relating Spins and Particles II
12:30 – 13:45	Lunch
14:00 – 15:30	**F. Ricci-Tersenghi**
	Advanced Cavity Applications I

Wednesday, July 19th

9:00 – 10:30	**D. Reichman**
	Mode-Coupling Theory of Glasses III
10:30 – 11:00	Coffee Break
11:00 – 12:30	**S. Nagel**
	Experiments in Marginality I
12:30 – 13:45	Lunch
14:00 – 15:30	**F. Ricci-Tersenghi**
	Advanced Cavity Applications II

Thursday, July 20th

9:00 – 10:30	**F. Zamponi**
	Tutorial: Relating Spins and Particles III
10:30 – 11:00	Coffee Break
11:00 – 12:30	**S. Nagel**
	Experiments in Marginality II
12:30 – 13:45	Lunch
14:00 – 15:30	**F. Ricci-Tersenghi**
	Advanced Cavity Applications III
18:30 – 18:55	**Poster Talks III**
	Duane G130
19:00 – 22:00	**Poster Session III**
	11th Floor Commons Room

Friday, July 21st

9:00 – 10:30	**K. Daniels**
	Experimental Jamming I
10:30 – 11:00	Coffee Break
11:00 – 12:30	**S. Nagel**
	Experiments in Marginality III
12:30 – 13:45	Lunch
14:00 – 15:30	**F. Ricci-Tersenghi**
	Advanced Cavity Applications IV
19:00 – 21:30	**Catered dinner**
	11th Floor Commons Room

Week 4, July 24 - July 28

Monday, July 24th

9:00 – 10:30	**K. Daniels**
	Experimental Jamming II
10:30 – 11:00	Coffee Break
11:00 – 12:30	**D. Weitz**
	Experimental Colloids I
12:30 – 13:45	Lunch
14:00 – 15:30	**B. Chakraborty**
	Low-Dimensional Jamming I
19:00 – 21:30	**K. Daniels**
	APS Communication and Negotiation Skills Seminar for Women (Optional)

Tuesday, July 25th

9:00 – 10:30	**D. Weitz**
	Experimental Colloids I
10:30 – 11:00	Coffee Break
11:00 – 12:30	**S. Sanguli**
	Neuroscience I
12:30 – 13:45	Lunch
14:00 – 15:30	**B. Chakraborty**
	Low-Dimensional Jamming I

Wednesday, July 26th

9:00 – 10:30	**G. Ben Arous**
	Random Matrices, Extreme Events I
10:30 – 11:00	Coffee Break
11:00 – 12:30	**S. Sanguli**
	Neuroscience II
12:30 – 13:45	Lunch
14:00 – 15:30	**P. Le Doussal**
	Advanced Disordered Topics I

Thursday, July 27th

9:00 – 10:30	**G. Ben Arous**
	Random Matrices, Extreme Events II
10:30 – 11:00	Coffee Break
11:00 – 12:30	**S. Sanguli**
	Neuroscience III
12:30 – 13:45	Lunch
14:00 – 15:30	**P. Le Doussal**
	Advanced Disordered Topics II

Friday, July 28th

9:00 – 10:30	**G. Ben Arous**
	Random Matrices, Extreme Events III
10:30 – 11:00	Coffee Break
11:00 – 12:30	**Summary of the School**
12:30 – 13:45	Lunch