WELCOME

Frustrated and Disordered Systems

Boulder School for Condensed Matter and Material Physics 2017
(BSS2017)

University of Colorado at Boulder

$ *NSF-DMR*

School's Founders

- Founded in 2000 with Steve Girvin, Matthew Fisher, and Andy Millis

Steve Girvin

Andy Millis

Matthew Fisher

- Millis -> Cristina Marchetti

School funding and operations

- NSF MR $300K/year, thanks Daryl Hess
- University of Colorado (CU) Physics Department
- Advisory board of 20 distinguished scientists
- Past schools from superconductivity to biophysics
  http://boulderschool.yale.edu/

Boulder School 2017

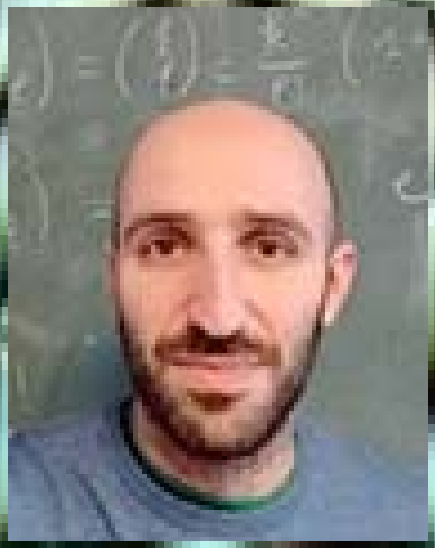
- Frustrated and Disordered Systems

http://boulderschool.yale.edu/2017/boulder-school-2017

- Fantastic program, thanks to the co-organizers:

Patrick Charbonneau

Eric Corwin



Francesco Zamponi

Lenka Zdeborova

Local Details

- Assistants: *Rayshan, Zhengzheng, Dakota*
- Reimbursement: *main Physics office*
- Library privileges
- CU bike rental at bike station outside UMC
- Rec center facilities with name tag, pay at the door
- Computers: *lab G116, UCB guest wireless, eduroam*
- No alcohol in public areas
- No meals or housekeeping on weekends

Local Details

- Soccer ball, basketball, hiking guides,…need something? Ask
- Discussion room S106 in Buckingham, lounge, ping pong, etc
- Reserved special dining Tree House room (seats 20) in C4C for lunches and dinners (reserved dates posted in handout)
- AC in rooms only works with closed windows; close during the day

Things to do in Boulder

- Hiking (guides/maps available)
- Biking (rent on the Hill or at CU)
- Tubing in the Boulder creek
- Chautauqua park
- Eldorado Canyon
- Rocky Mountain National Park
- Red Rocks Amphitheater
- Pearl Street Mall fine dining and hanging out

Scientific Program

	Glass track	Computer science track
Weeks 1 & 2: Basic tools	Theory, simulation, experiment on glasses. Packings. Replica method, dynamical methods	Computational complexity, information theory, networks, statistical inference, machine learning, cavity method.
Weeks 3 & 4: Advanced topics	Quantum glasses, jamming, self-assembly. Granular and colloidal glasses.	Algorithms and dynamics. Neurosciences.

Main message of the school: substantial unity of methods between the two tracks!

Participate

- Ask questions
- Organize student seminars, discussions and tutorials
- https://www.facebook.com/groups/bouldersummerschool2017/
- Actively participate in poster sessions
- Meet classmates and lecturers
- T-shirts


WELCOME!

Scientific Program

	Glass track	Computer science track
Weeks 1 & 2: Basic tools	Theory, simulation, experiment on glasses. Packings. Replica method, dynamical methods	Computational complexity, information theory, networks, statistical inference, machine learning, cavity method.
Weeks 3 & 4: Advanced topics	Quantum glasses, jamming, self-assembly. Granular and colloidal glasses.	Algorithms and dynamics. Neurosciences.

Main message of the school: substantial unity of methods between the two tracks!

Remarks

If you feel lost or find the lectures tough, don't be discouraged!

- Ask questions to the speakers
- Ask questions to the organisers: we can organise tutorials
- Some of the students already had training on these methods and they are available to help, answer questions, organise tutorials, etc.
- The first two weeks are crucial: don't wait to react if you are lost

Poster talks

- Session of poster talks before each poster session
- These are ONE MINUTE advertisements for your poster. No slides!
- Goal: generate interest in your poster

GSOFT

Topical Group on Soft Matter

APS physics

www.aps.org/unit

A new community of over 1500 soft matter scientists

GSOFT sponsors:

- Soft matter sessions at March Meeting
- Early Career Award for Soft Matter Research
- APS Fellows nominations

Why join as a student/post-doc?

- Travel grants for student speakers (up to $500)
- Student/post-doc poster prizes
- Short courses prior to March Meetings
  - 2017: "Fundamental Concepts and Tools in Computational Soft Matter Physics"
- Get announcements about soft matter events
- Vote in GSOFT leadership elections
- Help GSOFT grow into an APS Division, so we can get more resources for soft matter!

How much does it cost?

- First year is free.
- Annual dues: $10.
- *Graduate students join 2 APS units for free.*
- APS membership: $37/yr for grad students

Questions about joining? Contact:

Vivek Sharma viveks@uic.edu, Daniel Beller dbeller@seas.harvard.edu, Eric Corwin ecorwin@uoregon.edu

Background image by Qiong Tang, courtesy of Joe Zasadzinski