

The 2017 Amos de-Shalit Ulpana for Mathematics and Computer Sciences

Coordinators: **Prof. Yaron Lipman** – *Department of Computer Science and Applied Mathematics*
Prof. Avraham R. Aizenbud – *Department of Mathematics*

Sunday, September 10, 2017

Location: [Arthur and Rochelle Belfer Building for Biomedical Research;](#)
[Octav Bundorf Botnar Auditorium](#) (No. 23)¹

- 09:30-10:15 Arrival and registration
10:15-10:30 **Prof. Benny Shilo** – *Department of Molecular Genetics*
General comments <http://shilolabweb.weizmann.ac.il/>
10:30-10:40 **Prof. Irit Sagi** – *Dean, Feinberg Graduate School and*
Member, Department of Biological Regulation
http://www.weizmann.ac.il/Biological_Regulation/IritSagi/
<http://www.weizmann.ac.il/feinberg/>
Welcoming remarks
10:40 **Prof. Haim Harari** – *Department of Particle Physics and Astrophysics*
Introducing the Weizmann Institute
<http://www.weizmann.ac.il/particle/harari/>
11:50-12:45 Room assignment and freshening up
[Martha, Bram, Michael and Phillipe Laub International Science Youth Village](#) (No. 60)
12:45-14:00 Lunch at the Youth Village

Location of lectures: unless otherwise specified, lectures will be held at the
[Jacob Ziskind Building](#), Room 155 (No. 35)

- 14:00-15:00 **Prof. Yaron Lipman** – *Department of Computer Science and Applied Mathematics*, and
Prof. Avraham R. Aizenbud – *Department of Mathematics*
Introduction to the Ulpana
<http://www.wisdom.weizmann.ac.il/~ylipman/> <http://aizenbud.org/>
15:00-16:00 **Prof. David Harel** – *Department of Computer Science and Applied Mathematics*
On odor reproduction and how to test for it
<http://www.wisdom.weizmann.ac.il/~dharel/>
16:15-17:15 Working meeting with the mentors of the Ulpana

¹ Clicking on the location will lead to the campus map. Numbers refer to the printed map, which will be handed to you upon arrival.

- 17:30 **Tour** of Yad Weizmann and visit of the Weizmann House
Meeting point: [Memorial Plaza](#) (כיכר הזיכרון)
- 18:45² **Prof. David Mirelman** – *Department of Biomolecular Sciences*
The scientific legacy of the Institute founder, Dr. Chaim Weizmann;
From the academic research lab to the development of inventions
http://www.weizmann.ac.il/Biomolecular_Sciences/scientist/Mirelman/david_mirelman.html
Followed by dinner at the [Weizmann House](#) (No. 68)

Monday, September 11, 2017

- 9:00-10:00 **Dr. Merav Parter** – *Department of Computer Science and Applied Mathematics*
Fault resilient graph structures
- 10:15-11:15 **Prof. Aviezri S. Fraenkel** – *Department of Computer Science and Applied Mathematics*
Games and combinatorics
<http://www.wisdom.weizmann.ac.il/~fraenkel/>
- 11:30-12:30 Meeting with Institute students
- 12:30-12:40 Group picture on the stairs of the Ziskind Building
- 12:40-14:00 Lunch with vouchers at the Institute restaurants
- 14:00-17:30 Individual work on projects
- 18:30 **Prof. Michal Irani** – *Department of Computer Science and Applied Mathematics*
"Blind" Visual inference
<http://www.weizmann.ac.il/math/irani/>
[Octav Bundorf Botnar Auditorium, Arthur and Rochelle Belfer Building for Biomedical Research](#) (No. 23)
- 19:30 Dinner at [Charlie's Place Restaurant](#) (No. 25)

Tuesday, September 12, 2017

- 9:00-10:00 **Prof. Dmitry Novikov** – *Department of Mathematics*
Counting rational points on planar curves
<http://www.wisdom.weizmann.ac.il/~dnovikov/>
- 10:15-11:15 **Dr. Shahar Dobzinski** – *Department of Computer Science and Applied Mathematics*
What does computer science have to do with auction design?
<http://sites.google.com/site/dobzin/>
- 11:30-12:30 **Prof. Moni Naor** – *Department of Computer Science and Applied Mathematics*
How to share a secret, infinitely
<http://www.wisdom.weizmann.ac.il/~naor>
- 12:30-14:00 Lunch with vouchers at the Institute restaurants
- 14:00-17:30 Individual work on projects
- 18:30 **Prof. Benny Shilo** – *Department of Molecular Genetics*
From egg to organism: Principles of embryonic development
<http://shilolabweb.weizmann.ac.il/>
[Octav Bundorf Botnar Auditorium, Arthur and Rochelle Belfer Building for Biomedical Research](#) (No. 23)
- 19:30 Dinner with Institute students at [Café Mada](#) (No. 2)

² All evening lectures are jointly with the other Ulpanot.

Wednesday, September 13, 2017

- 9:00-10:00 **Dr. Dmitry Gourevitch** – *Department of Mathematics*
Introduction to representation theory
<http://www.wisdom.weizmann.ac.il/~dimagur/>
- 10:15-11:15 **Prof. Ronen Basri** – *Department of Computer Science and Applied Mathematics*
Perceiving 3D with computer vision
<http://www.wisdom.weizmann.ac.il/~ronen>
- 11:30-12:30 **Prof. Ehud Friedgut** – *Department of Mathematics*
Coloring triangulations, finding fixed points, and splitting rent fairly
- 12:30-14:00 Lunch with vouchers at the Institute restaurants
- 14:00-17:30 Individual work on projects
- 18:30 **Prof. Oded Aharonson** – *Department of Earth and Planetary Science*
Exploring the moon
<https://sites.google.com/a/aharonson.com/aharonson/>
[Octav Bundorf Botnar Auditorium, Arthur and Rochelle Belfer Building for Biomedical Research](#) (No. 23)
- 19:30 Dinner on the front deck of the [Feinberg Graduate School](#) (No.45)

Thursday, September 14, 2017

Until 11:00 a.m. lectures will be held in the:

[Octav Bundorf Botnar Auditorium, Arthur and Rochelle Belfer Building for Biomedical Research](#) (No. 23)

- 09:00-10:00³ **Prof. Avishay Gal-Yam** – *Head Department of Particle Physics, and Astrophysics*
Cosmic explosions and the origin of the elements
<http://www.weizmann.ac.il/particle/galyam/>
- 10:00-11:00³ **Prof. Irit Sagi** – *Dean, Feinberg Graduate School and Member, Department of Biological Regulation*
Meeting with the Dean of the Feinberg Graduate School³
http://www.weizmann.ac.il/Biological_Regulation/IritSagi/
<http://www.weizmann.ac.il/feinberg/>
- 11:15-12:30 **Prof. Irit Dinur** – *Department of Computer Science and Applied Mathematics*
High dimensional expanders
<http://www.wisdom.weizmann.ac.il/~dinuri/>
- 12:30 Lunch at the Ziskind Building
- 13:00 Presentation of projects

³ Jointly with the other Ulpanot