האקדמיה הלאומית הישראלית למדעים והאקדמיה הלאומית למדעים של ארצות הברית
מתכבדות להזמינכם לכינוס משותף

The Israel Academy of Sciences and Humanities and the National Academy of Sciences of the United States take pleasure in inviting you to

The Inaugural US–Israel Blavatnik Scientific Forum on

COMPUTER SCIENCE AND ITS IMPACT ON OUR FUTURE

שני–רביעי, ט"ז–י"ח באלול תשע"ט
Monday–Wednesday, September 16–18, 2019

Program

Monday, September 16, 2019

10:00 Greetings
Nili Cohen, President, Israel Academy of Sciences and Humanities (IASH)
Ken Fulton, Executive Director, National Academy of Sciences (NAS)

SESSION I
Chair: David Harel, Weizmann Institute of Science

Quantum Science & Technology – Part I
10:15 Charles H. Bennett, IBM Thomas J. Watson Research Center
The Quantum Impact on Technology and Fundamental Questions

11:00 Ady Stern, Weizmann Institute of Science
Harnessing Topological Physics for Quantum Computation

11:45 Coffee Break

Computer Science & Society – Part I
12:15 Noam Nisan, The Hebrew University of Jerusalem
Complexity and Simplicity in Economic Design

13:00 Omer Reingold, Stanford University
Complexity-Theoretic Perspectives on Algorithmic Fairness

13:45 Lunch Break

SESSION II
Chair: Michal Feldman, Tel Aviv University

Computation and the Life Sciences – Part I
15:00 Aviv Regev, Massachusetts Institute of Technology
Design for Inference in Biology

15:45 Ron Shamir, Tel Aviv University
Integrated Computational Analysis in Cancer and Precision Medicine

16:30 Coffee Break

AI & Autonomous Systems – Part I
17:00 Sarit Kraus, Bar-Ilan University
Robot–Human Collaboration and Learning for Improving Human Well-Being

17:45 Eva Tardos, Cornell University
Learning in Multi-Agent Environments

Keynote Speaker
18:30 Amnon Shashua, The Hebrew University of Jerusalem; Mobileye
The Promise of Machine Learning and AI in Transforming Industries

Tuesday, September 17, 2019

SESSION III
Chair: Shimon Ullman, Weizmann Institute of Science

Quantum Science & Technology – Part II
09:00 Dorit Aharonov, The Hebrew University of Jerusalem
Quantum Information Science: A Computational Lens on Quantum Physics

09:45 Thomas Vidick, California Institute of Technology
Secure Computation with Quantum Devices: From Device-Independent Cryptography to Verification of Quantum Computers

10:30 Coffee Break

Computer Science & Society – Part II
11:00 Shafi Goldwasser, Massachusetts Institute of Technology
Safe Machine Learning

11:45 Moshe Vardi, Rice University
Humans, Machines, and Work: The Future is Now

Wednesday, September 18, 2019

SESSION IV
Chair: Moshe Vardi, Rice University

AI & Autonomous Systems – Part II
09:00 Naftali Tishby, The Hebrew University of Jerusalem
Similarities and Differences between Deep Learning and our Biological Brains

09:45 Gal Kaminka, Bar Ilan University
Smart Swarms in the Wild and in the Small

10:30 Coffee Break

Computation and the Life Sciences – Part II
11:00 Uri Alon, Weizmann Institute of Science
Design Principles of Physiological Circuits

11:45 Leroy (Lee) Hood, Institute for Systems Biology
Big Data, Wellness and Disease

Closing Remarks
12:30 David Harel, Weizmann Institute of Science; Vice-President, Israel Academy of Sciences and Humanities

Organizing Committee
Michal Feldman, Shafi Goldwasser, David Harel, Aviv Regev, Shimon Ullman, Moshe Vardi

The conference will take place at The Israel Academy of Sciences and Humanities, Albert Einstein Square, 43 Jabotinsky St., Jerusalem

הרשמה
Registration

הכינוס יתקיים באקדמיה הלאומית הישראלית למדעים, כיכר אלברט איינשטיין, רחוב ז'בוטינסקי 43, ירושלים

The lectures will be in English   ההרצאות תתקיימנה בשפה האנגלית

מספר המקומות מוגבל, הכניסה בהרשמה מראש | הכניסה ללא תשלום על בסיס מקום פנוי | חניה ציבורית ברחובות הסמוכים לאקדמיה
Places are limited. Please register in advance | Admission is free of charge | Public parking is available in the streets adjacent to the Academy.