



TAD
The AI and Data Science Center
Tel Aviv University

TAD

The Center for AI and Data Science

2nd Annual Conference

March 20, 2023 9 AM - 5.30 PM
The Steinhardt Museum of Natural History

[PLEASE REGISTER HERE](#)

8:40-9:00 Gathering

9:00-9:10 Opening words:
Prof. Meir Feder, Head of TAD

9:10-10:10 Keynote:
Chair: Prof. Amir Globerson

Prof. Shai Shalev Shwartz,
HUJI & CTO, Mobileye

**Three revolutions in AI
happened in the last 4 years -
should we be alarmed?**

10:10-10:30 Coffee

10:30-11:30 Session 1:
Biomed ,Neuroscience
& Society
Chair: Dr. Shiri Stempler

Yossi Yovel (Zoology and Sagol School
of Neuroscience)
Can we harness AI for inter-species
communication

Yaniv Assaf (Neurobiology, Biochemistry
and Biophysics)
Monitoring brain plasticity using MRI

Galit Yovel (Psychological Sciences)
Uncovering the content of human mental
representations with deep learning
algorithms

Irad Ben Gal (Industrial Engineering)
Search applications by smart autonomous
agents via deep reinforcement learning

Itay Mayrose (Plant Sciences)
Phylogeny reconstruction as an artificial
intelligence game

11:30-11:50 Coffee

11:50-13:05 Session 2:
Fundamentals of AI,
Environment and Social Good
Chair: Prof. Saharon Rosset

Amir Globerson (Computer Science)
Notions of simplicity in deep learning

Daniel Duetch (Computer Science)
Explanations for Exploratory Data Analysis

Sivan Toledo (Computer Science)
Robust location estimation:
a data-science approach

Jonathan Belmaker (Zoology)
AI for early warning of invasive fishes

Vered Blass (Porter School for
Environmental Studies)
Using AI for advancing sustainability
and circular economy applications

Dan Zeltzer (Economics)
Negative controls for instrumental
variable designs

13:05-14:00 Lunch

14:00-15:00 Session 3:

Fundamentals of AI
and Physical Sciences
Chair: Dr. Shimon Shahar

Meir Feder (Electrical Engineering)
Information theory of the learnable

Raja Giryes (Electrical Engineering)
Using classic signal processing
to improve deep learning

Gili Bisker (Biomedical Engineering)
AI in nonequilibrium physics:
Estimating entropy production from
partial information using neural networks

Haim Suchowski (Physics and Astronomy)
Smart photonics

Tamir Bendory (Electrical Engineering)
Statistical and computational challenges
in cryo-EM: Signal detection as a showcase

15:00-15:20 Coffee

15:20-16:20 Session 4:
Ethics and Biomed
Chair:
Prof. Hagit Messer-Yaron

Ron Shamir (Computer Science)
Improving the handling of missing data in
multivariate longitudinal clinical data

Daniel Bar (Medicine)
Targeting aging-related diseases
by integrating machine learning,
biophysical and cellular tools

Daniel Yekutieli (Mathematical Sciences)
Diagnostic and prognostic scores for
pancreatic cancer using big medical data
high-dimensional modelling

Kobi Kastiel (Law)
AI in the Financial Sector: Common Uses,
Challenges and Regulatory Responses

Mickey Zar (Law)
Unboxing Artificial Intelligence

16:20-16:35 Coffee

16:35-17:25 Session 5:
NLP and Social Good
Chair: Dr. Liora Sarfati

Uri Rom (Music)
Algorithmic Toolset for Data-driven Music-
Analytical Research: Work in Progress

Michael Gilead (Psychological Sciences)
Can NLP find the truth (better than humans)

Inbal Yahav (Management)
A Bidirectional Domain Expert - Chatbot
Interaction Framework for Data Annotation

Jonathan Ben-Dov (Bible)
Advanced Computational Tools for Qumran
Scrolls Research

17:25-17:30 Closing Remarks

