



**IEEE
Information
Theory Society**



Mini-ISIT (*Israel Symposium on Information Theory*) Conference, 2025

When: Sunday, 20.07.25

Where: Tel-Aviv University, Broadcom 001

Keynote lectures:

- Meir Feder, Tel Aviv University
- Eitan Yaakobi, Technion

The conference will include 17 talks of works that were accepted to the ISIT, 2025 conference. See agenda below.

Registration [form](#) (registration is free but mandatory)

Organizers: Roni Con and Anatoly Khina

This event is co-organized by the IEEE Israel Section Chapter and is co-sponsored by the IEEE Information Theory Society, the IEEE Israel Section Chapter, and by TAD - the center of AI & Data Science, Tel Aviv University

Gathering, Coffee and Snaks		08:30-8:50
Opening remarks		8:50-9:00
The Universality Lens: Why Even Highly Over-Parametrized Models Learn Well? Keynote lecture by Meir Feder (Tel Aviv University)		09:00-09:50
Session 1, Chair: TBD		
Twice-Universal Prediction in Over-Parameterized Linear Regression Anton Tchaplianka and Meir Feder (Tel Aviv University)		09:50-10:10
Constrained Universal Learning Under Misspecification Shlomi Vaturi and Meir Feder (Tel Aviv University)		10:10-10:30
Optimal Quantization for Matrix Multiplication Or Ordentlich (Hebrew University of Jerusalem, Israel); Yury Polyanskiy (MIT)		10:30-10:50
High-Rate Nested-Lattice Quantized Matrix Multiplication with Small Lookup Tables Iris Kaplan and Or Ordentlich (Hebrew University of Jerusalem, Israel)		10:50-11:10
Coffee Break		11:10-11:40
Session 2, Chair: TBD		
Optimal Bookmaking for Binary Games Alankrita Bhatt (Caltech); Or Ordentlich and Oron Sabag (Hebrew University of Jerusalem)		11:40-12:00
Anonymous Shamir's Secret Sharings Roni Con (Technion)		12:00-12:20
Optimal Functional 2^{S-1} -Batch Codes: Exploring New Sufficient Conditions Lev Yohananov and Isaac Barouch Essayag (Migal, Israel)		12:20-12:40
Lunch on Site		12:40-14:00
How to Improve the Information Rate and Speed of DNA Synthesis? Keynote lecture by Eitan Yaakobi (Technion)		14:00-14:50
Session 3a, Chair: TBD		Session 3b, Chair: TBD
Error-Correcting Codes for Labeled DNA Sequences Dganit Hanania and Eitan Yaakobi (Technion, Israel)	Optimal Overlap Detection for Shotgun Reads Nir Luria and Nir Weinberger (Technion)	14:50-15:10
Improved Constructions of Linear Codes for Insertions and Deletions Roe Gross , Roni Con and Eitan Yaakobi (Technion)	Efficient Polar Systematic Encoder Without the Domination Contiguity Property Idan Dekel , Yaron Shany, Ariel Doubchak and Amit Berman (Samsung)	15:10-15:30
Coding for Ordered Composite DNA Sequences Besart Dollma (Technion); Ohad Elishco (Ben-Gurion University of the Negev); Eitan Yaakobi (Technion)	Noise Recycling based Multi-Level Flash Memory Gilli Horowitz Hadayo , Yuval Cassuto and Alejandro Cohen (Technion)	15:30-15:50
Complex DNA Synthesis Sequences Boaz Moav and Eitan Yaakobi (Technion, Israel); Ryan Gabrys (Naval Information Warfare Center Pacific)	An Upper Bound on the Capacity of Bandlimited LTI AWGN Channels Subject to Peak-Amplitude Constraint Idan Tzachy (Technion); Ron Dabora (Ben-Gurion University); Shlomo (Shitz) Shamai (Technion)	15:50-16:10
Coffee Break		16:10-16:40
Session 4, Chair: TBD		
DeepDIVE: Optimizing Input-Constrained Distributions for Composite DNA Storage via Multinomial Channel Adir Kobovich , Eitan Yaakobi and Nir Weinberger (Technion)		16:40-17:00
Constrained Coding for Composite DNA: Channel Capacity and Efficient Constructions Thanh Tuan Nguyen (Singapore University of Technology and Design); Chen Wang (Shandong University); Kui Cai (Singapore University of Technology and Design); Yiwei Zhang (Shandong University); Zohar Yakhini (IDC, Israel)		17:00-17:20
Concluding remarks		17:20-17:40