THE INSTITUTE OF ADVANCED STUDIES

המכון ללימודים מתקדמים

Annual Report 2023-2025

Report of the Director

The academic years 2023–2024 and 2024–2025 were marked by both remarkable scholarly activity and unprecedented national hardship. At the Institute of Advanced Studies, we are proud to have continued fostering vibrant intellectual exchange across disciplines and borders.

This ongoing work unfolded against the backdrop of profound national tragedy, the events of October 7 and the ensuing war, which have deeply affected Israeli society as a whole and, on a closer scale, Tel Aviv University. Amid ongoing events, we successfully hosted 33 leading visiting scholars from around the world, reflecting our continued commitment to international collaboration, academic excellence and open dialogue.

Over the past two years, the Institute hosted visiting scholars through seven frameworks:

IAS Visiting Scholars: Professors Ruth Scodel, Michael Fishbane, Marcin Wodzinski, and Lyle Isaacs.

IAS Distinguished Scholars: Professors Benny Sudakov, Paul Wiegmann, Christoph von der Malsburg, Mark Sandler, and Joel Eaves.

Lowy Distinguished Guest Professors: This new framework was made possible thanks to a generous donation by Sir Frank Lowy to Tel Aviv University, in memory of his late wife, Shirley Lowy. The program supports extended visits by leading international scholars and is part of the development of the Lowy International School. Inaugural guests included Professors Sacha Stern, Joseph Halpern, and Alex Evilevitch in 2023–2024, followed in 2024–2025 by Professors Eitan Tadmor, Nobel Laureate Reinhard Genzel, Joshua Trachtenberg, Michael Waidner, Haya Schulmann, Astrid von Busekist, Alberto Melloni, Helena Florindo, Dvira Segal, and a second visit by Professor Alex Evilevitch.

IAS Outstanding Junior Fellows: Two promising early-career scholars, Professors Giulia Giordano and Rachel Greenfeld.

IAS Fulbright–TAU Senior Scholars: In partnership with the Fulbright Program, we hosted Professors Diana Berman, Siegfried Glenzer, and Dan Edidin.

Distinguished Lectures: Our public lecture series featured Professors Konstantin Khanin, David Kosower, and Julien Fuchs in 2023–2024, followed by Nobel Laureate Reinhard Genzel and Professor Vincenzo Vagnoni in 2024–2025.

Shaoul Visiting Scholars Program: Concluding in 2024–2025, this long-standing framework ended on a high note with the successful visit of Professor Georg Fischer.

As one chapter ends, another begins. The conclusion of the Shaoul program coincided with the launch of the Lowy Distinguished Guest Professors framework, which is a significant step in expanding the Institute's role within TAU's broader international strategy. We are honored to participate in this new phase and to deepen our connections with global academic communities.

We thank all our TAU hosts — faculty members across departments — for their dedication, generosity, and academic engagement. Their support enables the Institute to serve as a dynamic hub for intellectual exchange, academic vitality and the advancement of knowledge.

Marek Karliner
Director, Institute of Advanced Studies
Tel Aviv University

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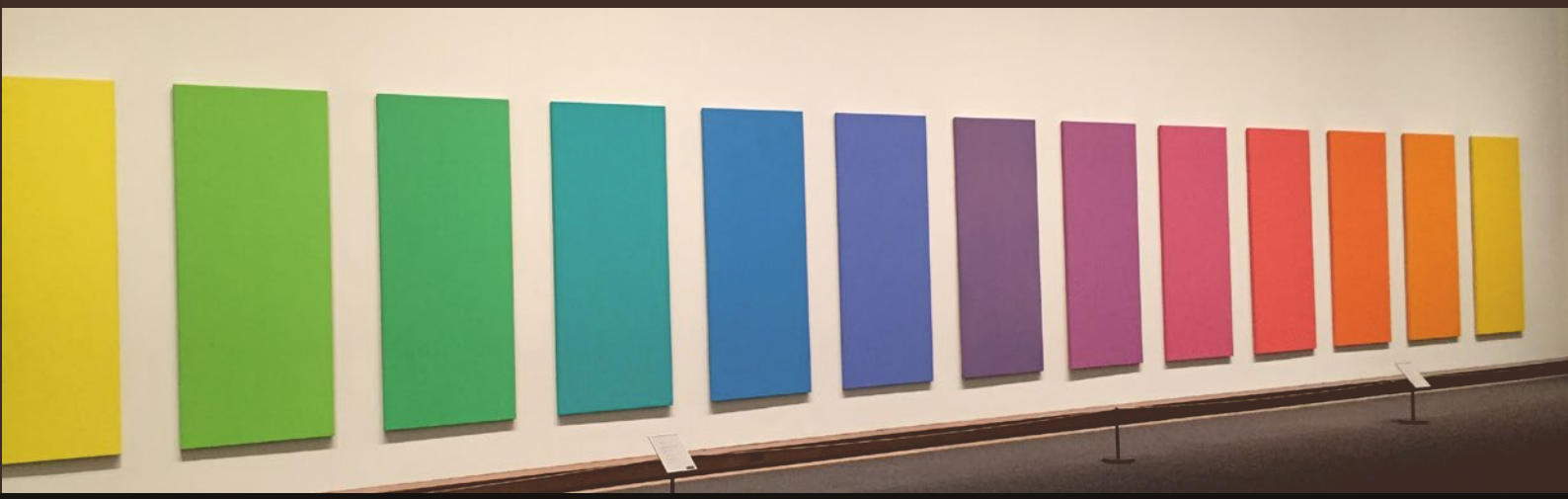
A Note to the Reader

Our work this year benefited greatly from the outstanding and continued collaboration and support of the Lowy International School, its Head, Prof. Milette Shamir, its Director, Ms. Maureen Adiri Meyer, and the Director of International Development, Ms. Sharon Ziv Kafri. We are sincerely grateful for their support.

In the following pages, the guest professors are presented in chronological order within each framework.



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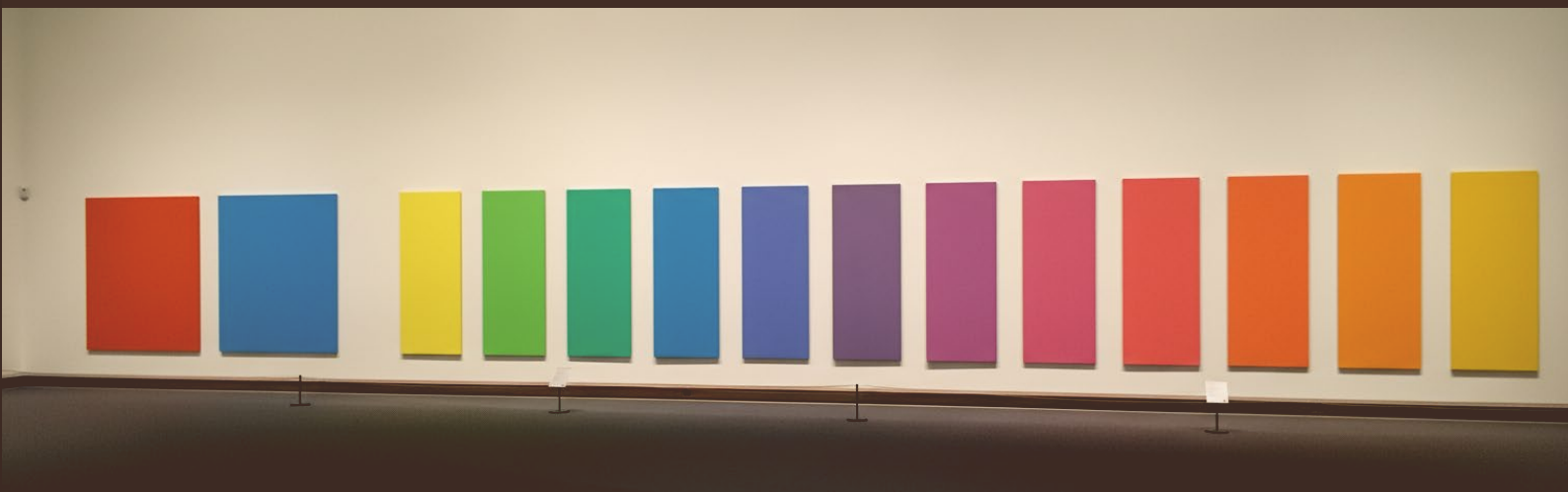


IAS Visiting Scholars

IAS Visiting Lecturers are selected for their eminence in their respective fields of research.

The program hosts two categories of academic visitors:

1. IAS Visiting Lecturers, who are invited for a period of one to two weeks and are expected to deliver a few lectures during their visit.

2. IAS Visiting Fellows, who are visitors who stay at the University for a period of one to three months for the primary purpose of interacting with Faculty members and graduate students. IAS Visting Fellows are free of the regular responsibilities of visiting faculty members, including teaching, lecturing, or administrative duties. Although, most of our guests have chosen to give a few lectures in their field of expertise. The lectures are frequently the highlight of the semester and attended by academics from all over Israel.

2023-2024 IAS VISITING FELLOWS AND LECTURERS

Professor Ruth Scodel

Lecturer • D.R. Shackleton-Bailey Collegiate Professor Emerita of Greek and Latin, University of Michigan at Ann Arbor, USA. • Senior Research Associate, University of California at Davis, California, USA

2024-2025 IAS VISITING FELLOWS AND LECTURERS

Professor Michael Fishbane

Fellow • Nathan Cummings Distinguished Service Professor Emeritus of Jewish Studies, Divinity School and the College, University of Chicago, Illinois, USA

Professor Marcin Wodziński

Lecturer • Taube Department of Jewish Studies, University of Wrocław, Poland

Professor Lyle Isaacs

Lecturer • Department of Chemistry and Biochemistry University of Maryland, College Park, Maryland, USA

Prof. Ruth Scodel

Professor Ruth Scodel was our IAS Visiting Lecturer for the year 2024 and has visited Tel Aviv University between the 17th of July and 3rd of August, 2024.

Professor Scodel is a D.R. Shackleton-Bailey Collegiate Professor of Greek and Latin at the University of Michigan. Professor Scodel specializes in ancient Greek literature, with particular interests in Homer, Hesiod and Greek Tragedy. Her research has been influenced by narrative theory, cognitive approaches, and politeness theory.

Prof. Scodel is a member of the American Academy of Arts and Sciences. She has published several books, the lastest in 2010, "Greek Tragedy: an Introduction for Students". She is on the editorial board of the Classical Journal and an editor at *Texte und Kommentare* (de Gruyter). She has also published many articles and chapters in collected volumes, particularly on Homer and Greek tragedy, but also on Hellenistic literature, Latin poetry, and reception.

Prof. Uri Yiftach, Dr. Guy Stiebel, Prof. Ruth Scodel and Prof. Jonathan Price

During her stay, Professor Scodel held two highly successful lectures. On the 22nd of July, Professor Scodel delivered a lecture 'In Vino Veritas'. The paper was

delivered in the framework of a seminar held cooperation with the Department of Archaeology, on the subject "Wine that makes glad the heart of man": Wine as an Economic and Cultural Phenomenon in the Classical World.

On the 24th of July, Professor Scodel held a guest lecture at the Department of Classical Studies on the subject 'Greek Minds'. Professor Scodel also had multiple encounters with members of the departments of Classics and History, as well as with advanced students of our department.

We are extremely grateful for the opportunity of hosting Professor Scodel at Tel Aviv University. We would also like to express our utter admiration and gratitude for the hospitability and care shown by Ronit Nevo, and Adi Arbusman, in seeing through the nomination procedure under extremely difficult circumstances, and in satisfactorily addressing all questions and inquiries.

We would also like to thank Ms. Joan Lessing, whose generous contribution has made this visit possible.

Prof. Uri Yiftach (Academic Host)

IAS Guest Prof. Michael Fishbane delivering his lecture on December 11, 2024, at the Cymbalista Jewish Heritage Center

Prof. Michael Fishbane

Prof. Michael Fishbane , Professor Emeritus at the University of Chicago's Divinity School and a member of the American Academy of Arts and Sciences, spent a research residency (Nov. 2024-Feb. 2025) at the Institute for Advanced Studies at Tel Aviv University, with an additional affiliation to the Department of Jewish Philosophy and Talmud.

Undertaken at a sensitive juncture for international academic engagement with Israeli institutions, his visit offered an exemplary model of principled scholarly exchange, reaffirming the value of open, cross-border collaboration and intellectual hospitality.

A centerpiece of the residency was a public event that interwove Prof. Fishbane's current research on *piyyut* with live performances of selected liturgical pieces. The evening was co-organized by the Cymbalista Jewish Heritage Center, the Department of Literature at Tel Aviv University and the Department of Jewish Philosophy and Talmud.

Alongside Prof. Fishbane's lecture, remarks were delivered by Dr. Ariel Zinder, a leading scholar of piyyut

and Chair of the Department of Literature, who helped situate Prof. Fishbane's scholarship within broader literary and historical frames. The event drew a wide audience and modeled the integration of rigorous scholarship with performance and public humanities.

During his time at TAU, Prof. Fishbane completed a scholarly monograph on *piyyut* that treats the corpus in philosophical, hermeneutical, and poetic perspectives. The book has been accepted for publication by Oxford University Press and is slated for release in 2026. He presented the project in the Departmental Seminar of the Department of Jewish Philosophy and Talmud, in a session attended by faculty colleagues, M.A. and Ph.D. students, and participants from across the Faculty. The seminar generated lively debate on method and interpretation and underscored the relevance of piyyut for contemporary discussions in Jewish thought and literary theory.

In parallel, the department hosted a focused doctoral workshop for research

Prof. Michael Fishbane and Dr. Ariel Zinder (Chair, Department of Literature)

Prof. Michael fishbane delivered a lecture on *piyyut*, *midrash* and the authority of the poet

students working in Prof. Fishbane's areas of expertise — hermeneutics, theology, and the history of Jewish thought. The workshop combined close reading with methodological reflection. Students reported that their engagement with Prof. Fishbane broadened their international horizons, sharpened their analytical tools, and provided concrete mentorship on framing their work for a global scholarly audience.

Beyond the formal program, Prof. Fishbane held one-on-one consultations with a range of colleagues in the department, including Prof. Menahem Lorberbaum, Prof. Adam Afterman, Prof. Eshbal Ratzon, and Prof. Vered Noam. He also met with scholars in adjacent fields, among them Dr. Ariel Zinder (Lit.) and Prof. Yonatan Ben-Dov (Biblical Studies). These meetings catalyzed prospective collaborations and identified promising areas for joint seminars and future visiting-scholar exchanges.

Looking ahead, the Department of Jewish Philosophy and Talmud is keen to deepen this partnership. Prof. Fishbane, now an esteemed friend of the department, stands to play a pivotal role in amplifying the international profile of the department's research and in cultivating its students' scholarly formation. Continued collaboration will help the department extend TAU's leadership in the study of Jewish thought, enrich its curriculum with comparative and interdisciplinary perspectives, and connect its graduate researchers to an active global network of scholars.

The event featured musical interludes performed by the "Écoute" ensemble

Prof. Marcin Wodziński

Over the Spring of 2025, The Institute of Advanced Studies invited as a Visting Lecturer for a one-month visit, one of the world's leading scholars of Hasidism and Polish Jewish history, Prof. Marcin Wodziński of the University of Wrocław.

Prof. Wodziński's research focuses on Hebrew epigraphy, Jewish material culture, and the social and religious history of the Jews in nineteenth-century Eastern Europe, especially the history of Hasidism and the Haskalah. His contributions to Jewish studies, in general, and to the study of Hasidism, in particular, are exceptional.

Prof. Wodziński is the editor-in-chief of the biannual European Journal of Jewish Studies. He has authored twelve books (three of them co-authored), edited eight volumes, and published over 100 peer-reviewed articles in Polish, English, Hebrew, French, and Czech. His book "Historical Atlas of Hasidism" (Princeton

University Press, 2018) won the National Jewish Book Award (2019), and "Hasidism: Key Questions" (Oxford University Press, 2018) has been translated into several languages.

The visit was co-sponsored by the S. Daniel Abraham Center for Regional Studies, the Institute for Polish Jewish History and the Koret Center for Jewish Civilization, all at TAU.

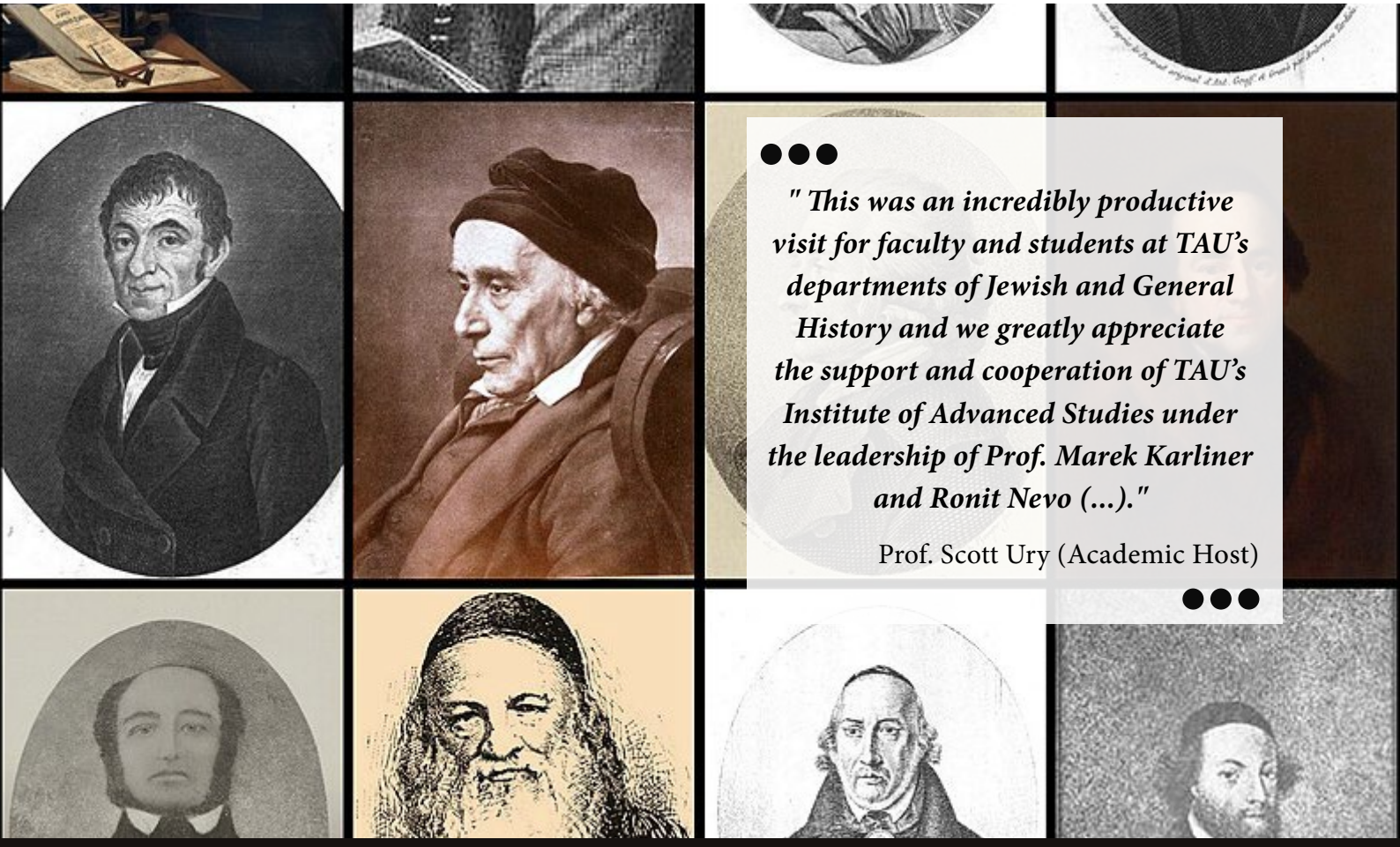
During his four-week visit (March 15, 2025 to April 10, 2025), Prof. Wodziński presented a lecture to the Koret Center's monthly seminar on the two enlightenments in Polish history, discussed his most recent research on responses to the Jewish enlightenment to a graduate student seminar hosted by Prof. Maoz Kahana and gave an broad overview of the history of Hasidism to undergraduate students and community members organized by Prof. Scott Ury.

In addition to these presentations and discussions at TAU, Prof. Wodziński met with MA and Ph.D. students at TAU to discuss their research projects and also with several postdoctoral fellows affiliated with TAU's Dept. of Jewish history. He also met with faculty and graduate students from other Israeli

Academic host Prof. Maoz Kahana, IAS Visting Lecturer Marcin Wodzinski and Prof. Youval Rotman.

universities and presented part of his research to a community event in the city of Modiin which was organized by a doctoral student at TAU, Rabbi Elli Fischer.

By enabling Prof. Wodziński to spend four weeks at Tel Aviv University, TAU's IAS, in cooperation with the other units detailed above, contributed greatly to the intellectual and scholarly experience of a cohort of graduate students of modern Jewish history at Tel Aviv University. His visit also helped advance potential cooperative endeavors between Prof. Wodziński and various faculty members at TAU, including Profs. Kahana and Ury and also Prof. Havi Dreifuss.



" This was an incredibly productive visit for faculty and students at TAU's departments of Jewish and General History and we greatly appreciate the support and cooperation of TAU's Institute of Advanced Studies under the leadership of Prof. Marek Karliner and Ronit Nevo (...)."

Prof. Scott Ury (Academic Host)

Prof. Lyle Isaacs

Prof. Lyle Isaacs was elected as a Visiting Lecturer for the year 2024-2025 by the IAS committee, and visited us at TAU on June 2025.

Prof. Isaacs, who is a Professor of Chemistry at the Department of Chemistry and Biochemistry of the University of Maryland at College Park, USA, is a world leader in the field of Cucurbit[n]uril (CB[n]s) chemistry.

Prof. Isaacs arrived in Tel Aviv on Sunday, June 8. On Monday, June 9, he gave his first lecture, entitled "Cucurbit[n] uril Molecular Containers: Mechanism, Recognition Properties, and Function."

In this lecture, Prof. Isaacs gave an overview on cucurbit[n]uril chemistry explaining, inter alia, the reasons for the fact that CBs are strong binders in aqueous solutions. He also demonstrated how his mechanistic studies on the formation CBs, enabled the preparation of new CBs sub-families such as chiral CB[n], acyclic CB[n], double cavity CB[n], and monofunctionalized CB[n]. He focused on acyclic CBs that can solubilize insoluble drugs and can be used as reversal agents for neuromuscular block as well as hyperlocomotion induced by drugs of abuse (e.g. methamphetamine).

On that day Prof. Isaacs had scientific meetings with Profs. M. Gozin, A. Sitt, R. Dobrovetsky, A. Vigalok, M. Fridman and his academic host Y. Cohen.

On June 10, Prof. Isaacs delivered his second lecture titled "Design and development of supramolecular hosts that function as in vivo sequestrants".

In that lecture Prof. Isaacs focused on a new family of host molecules that he developed based on sulfonated pillar[n]arenes that he called pillar[n]MaxQ (n= 5 or 6). He described the very strong complexes that pillar[n]MaxQ form, in water, with biologically important molecules such as natural and synthetic opiates. He demonstrated how such host molecules can be used for the in vivo sequestration of compounds such as methamphetamine and more importantly fentanyl. Fentanyl is known to be a major killer in the US in recent years.

IAS Guest Prof. Lyle Isaacs delivering his lecture on June 9, 2025.

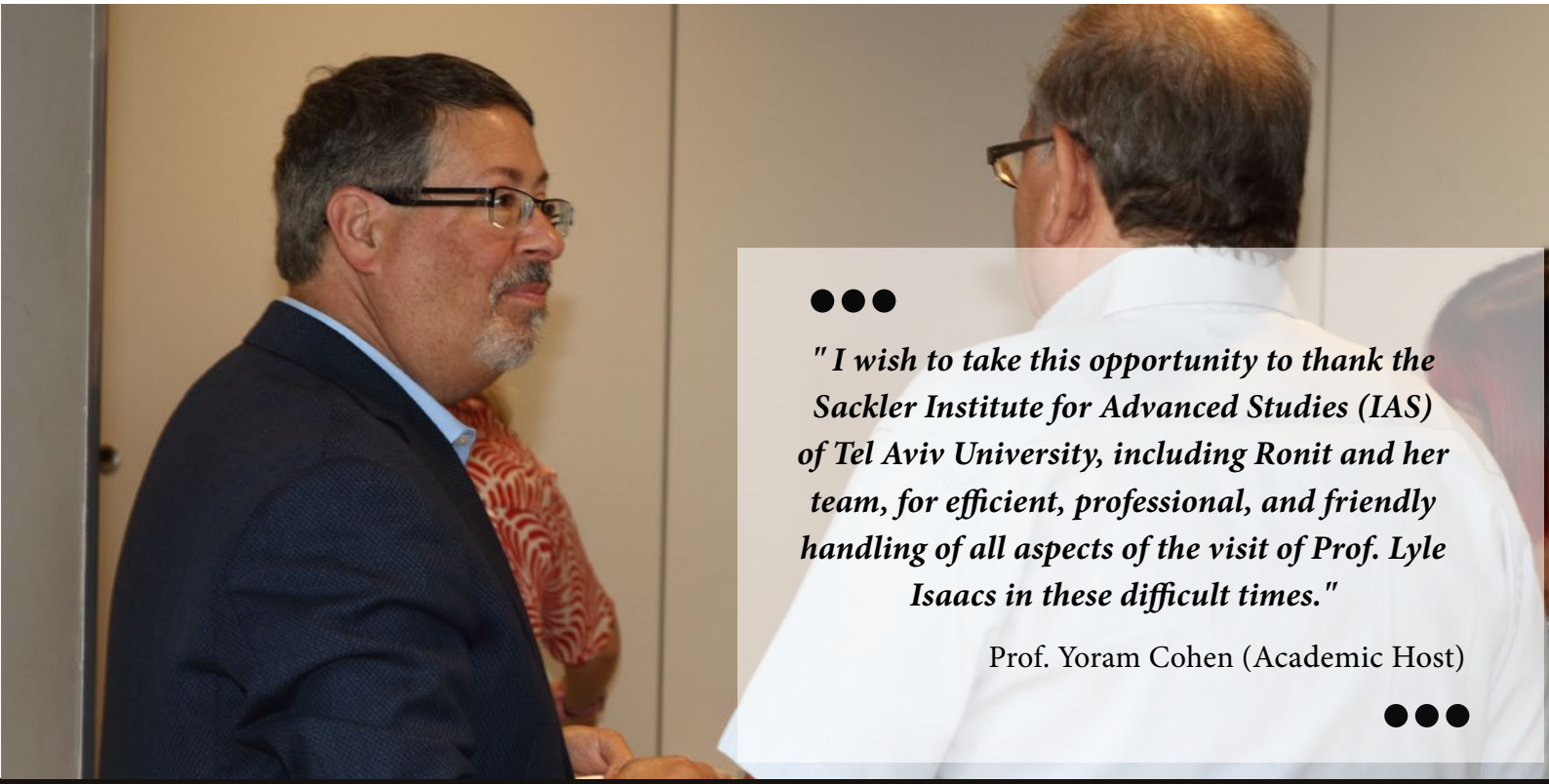
On that same day, Prof. Isaacs had scientific meetings with Profs. S. Carmeli, R. Amir, M. Jbara, D. Shabat, M. Kol and A. Vigalok. In this second talk, Profs. Isaacs and Vigalok discussed the possibility of future scientific cooperation.

On Wednesday, June 11, Prof. Isaacs visited the Weizmann Institute of Science (WIS) in Rehovot, delivered a talk and met with several Faculties.

On Thursday, June 12, Prof. Isaacs visited, with his academic host Prof. Cohen, the ANU Museum between and met with Prof. M. Portnoy. In the afternoon, he was escorted by Prof. A. Vigalok to Caesarea in Northern Israel.

During that evening, Prof. Isaacs expressed to Prof. Cohen his enthusiasm from the visit, saying that they were much more than he expected. Eventually, the visit was interrupted by the war with Iran that started on that night. On Friday, June 13, Prof. Fridman took Prof. Lyle Isaacs from his Broshim apartment to his home and organized his evacuation to Eilat, Aqaba and back to the US.

Academic host Prof. Yoram Cohen and Prof. Lyle Isaacs



" I wish to take this opportunity to thank the Sackler Institute for Advanced Studies (IAS) of Tel Aviv University, including Ronit and her team, for efficient, professional, and friendly handling of all aspects of the visit of Prof. Lyle Isaacs in these difficult times."

Prof. Yoram Cohen (Academic Host)

IAS Distinguished Scholars

The IAS Distinguished Scholars Program supports visits by leading international academics whose work reflects innovation and excellence in their respective fields.

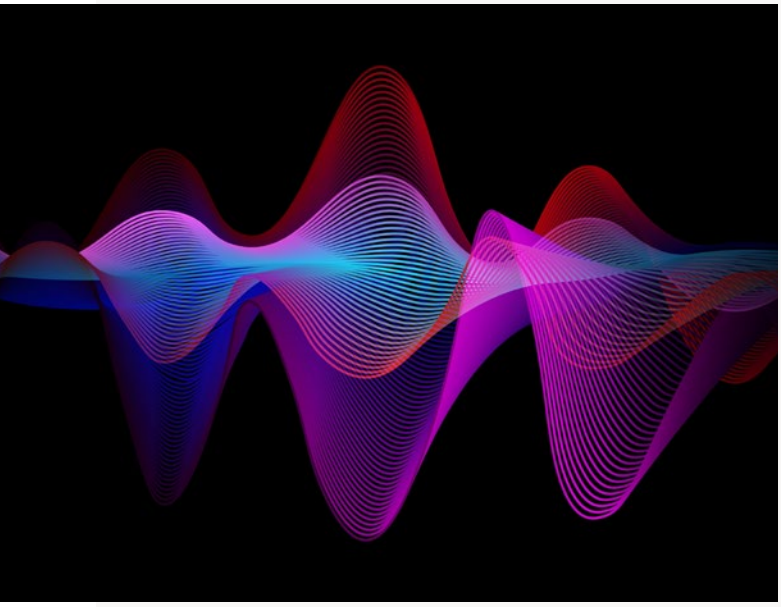
Candidates are selected by the IAS Board based on their academic prominence and the potential for impactful collaboration with existing research groups at Tel Aviv University.

IAS Distinguished Scholars can be invited for a period of either one to two weeks or one to three months and are expected to deliver a few lectures during their visit.

IAS Distinguished Scholars are free to carry out their own research at the University, to collaborate with other researchers in joint work, or to participate in any way they see fit in the life of the University. Many visitors have chosen to give a few lectures in their field of expertise. The lectures are frequently the highlight of the semester and attended by academics from all over Israel.

2023-2024 IAS DISTINGUISHED SCHOLARS

Professor Benjamin Sudakov
Department of Mathematics, ETH Zurich, Switzerland



2024-2025 IAS DISTINGUISHED SCHOLARS

Professor Paul Wiegmann
Department of Physics and the College, Kadanoff Center for Theoretical Physics , Chicago, USA

Professor Christoph von der Malsburg
Frankfurt Institute for Advanced Studies, Germany • Institute for Neuroinformatics, UZH/ ETH Zurich • Center for Artificial Intelligence, ZHAW, Winterthur, Switzerland

Professor Mark Sandler
Director of the Centre for Digital Music, School of Electronic Engineering and Computer Science, Queen Mary University of London, UK

Professor Joel Eaves
Department of Chemistry, University of Colorado at Boulder, USA

Prof. Benjamin Sudakov

Prof. Benjamin Sudakov visited TAU in Dec. 2023 — Jan. 2024 for about three weeks, as a Distinguished Scholar of the Institute of Advanced Studies of Tel Aviv University.

Prof. Sudakov is a professor of Mathematics at ETH Zurich, Zurich, Switzerland. He has authored more than 300 scientific publications and serves on the editorial boards of dozens of research journals. His main scientific interests include combinatorics and its applications to other areas of mathematics and computer science.

The visit of Prof. Sudakov was very successful and productive scientifically. During his visit, he interacted with several faculty members of the School of Mathematical Sciences, including Profs. Krivelevich, Samotij and Shapira, as well as with several research students. It is reasonable to expect that some of these interactions will result in papers coauthored by Prof. Sudakov and TAU local researchers.

He also gave a very well attended talk at the Combinatorics Seminar of the School on Dec, 31, 2023, titled "SDP, MaxCut, discrepancy and log-rank-

conjecture" and reporting about his recent exciting research findings.

The lecture explored the use of semidefinite programming (SDP) beyond its role in approximation algorithms, focusing instead on its power to provide concise proofs for classical and new results in combinatorics and theoretical computer science. The speaker presented SDP-based proofs for estimates related to MaxCut and graph and matrix discrepancy, and showed how these results contribute to an improved upper bound on Lovett's version of the log-rank conjecture.

We are certainly looking forward to further visits of Prof. Sudakov.

Academic host Professor Michael Krivelevich, IAS Distinguished Scholar Professor Benjamin Sudakov and Professor Wojciech Samotij

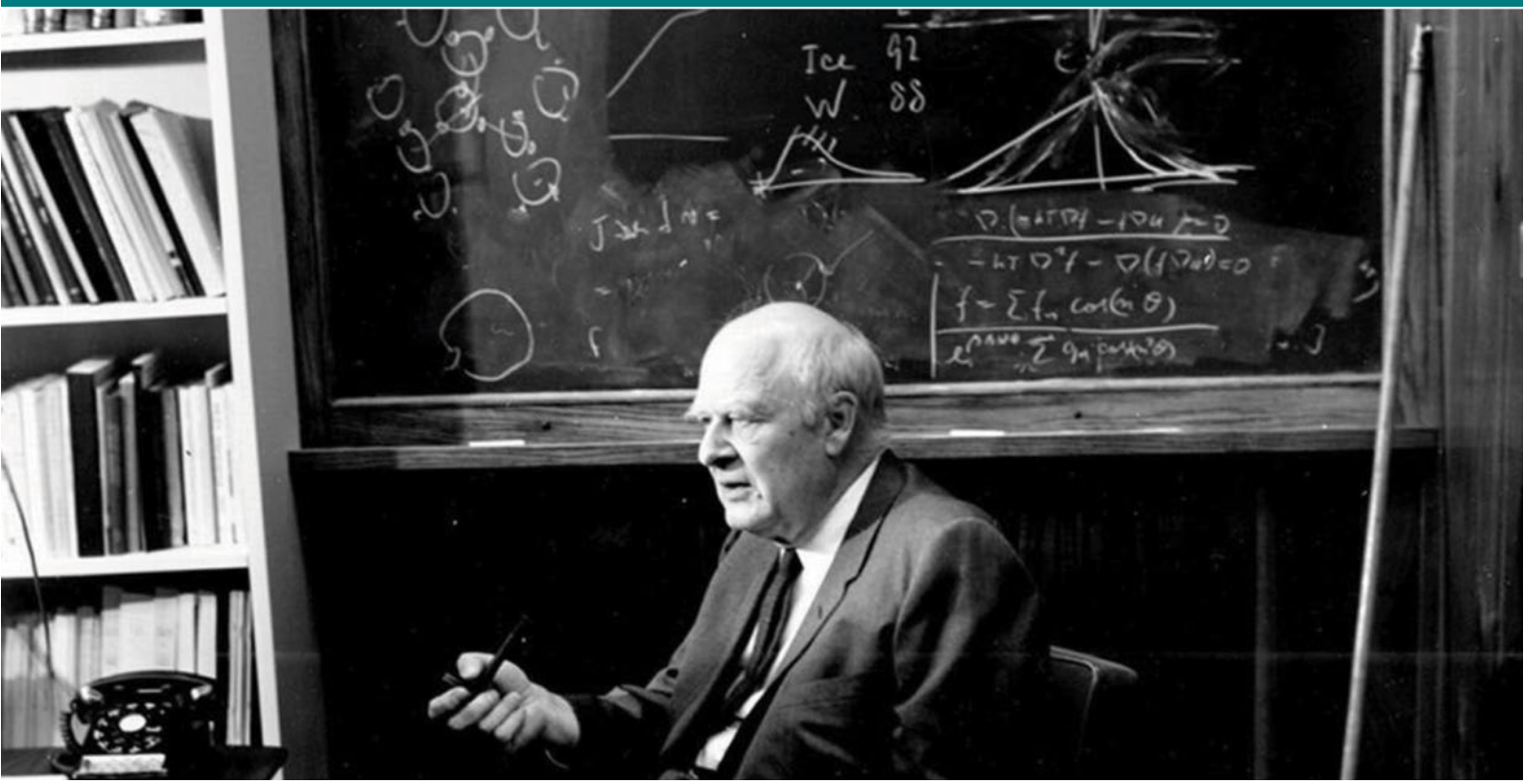
Prof. Paul Wiegmann

IAS Director Prof. Marek Karliner, Academic host Prof. Amit Sever, Prof. Paul Wiegmann and Prof. Yaron Oz

We were honored to host Prof. Paul Wiegmann as our Institute of Advanced Studies Distinguished Scholar at Tel Aviv University from December 12 to December 29, 2024.

Prof. Wiegmann is the Robert W. Reneker Distinguished Service Professor in the Department of Physics, and a Fellow of the James Franck Institute, the Enrico Fermi Institute and the Kadanoff Center for Theoretical Physics, at the University of Chicago and the College, Chicago, Illinois, USA.

Prof. Wiegmann is a Simons Fellow in Theoretical Physics and a fellow of the American Physical Society. He is a leading theoretical physicist renowned for his contributions to condensed matter physics, mathematical physics, and integrable systems. His work has significantly advanced the understanding of quantum systems, particularly in the context of strongly interacting electrons, topological materials, and quantum field theory. His pioneering contributions to the theory of integrable systems and his application of this theory to complex quantum systems have transformed our



Lars Onsager and "little vortices we played with" in the left corner of the blackboard (Yale picture collection)

understanding of phenomena such as the Quantum Hall Effect and topological phases of matter.

During his visit, Professor Wiegmann delivered two captivating and thought provoking lectures.

1. "Multivalued Wess-Zumino-Novikov Functional in Hydrodynamics"

Presented at the Neve Shalom joint seminar in theoretical high-energy physics, this lecture provided deep insights into the role of multivalued functional approaches in hydrodynamics, sparking stimulating discussions among attendees.

2. "Quantization of Hydrodynamics and Gravitational Anomaly"

Delivered to the high-energy theory group at Tel Aviv University, this talk delved into the intriguing interplay between hydrodynamic quantization and gravitational anomalies, offering novel perspectives that resonated strongly with researchers in the field.

In addition to his lectures, Professor Wiegmann's visit catalyzed numerous fruitful scientific discussions with faculty and students from diverse fields, including high-energy physics, condensed matter physics, and plasma physics.

These exchanges led to meaningful idea-sharing and laid the groundwork for potential future collaborations.

His daily engagement with TAU's department significantly enriched its academic environment, fostering a vibrant atmosphere of intellectual curiosity and innovation.

Prof. Christoph von der Malsburg

Professor Christoph von der Malsburg visited the Institute of Advanced Studies at Tel Aviv University as an IAS Visiting Scholar, from March 29 to April 3, 2025.

Professor von der Malsburg is a Senior Fellow Emeritus at the Frankfurt Institute for Advanced Studies, Germany. He is one of the leading founders of the field of computational neuroscience in Germany.

His research interests focus on processes of organization in the brain with emphasis on the structure and function of the visual system. His publications concerning the theory of self-organization of regular fiber projections in the visual system made him a pioneer of this field.

He is now working on contrasting natural intelligence with recent achievements in artificial intelligence, emphasizing the ability of natural brains to generate their internal structure based on parsimonious genetic data, to learn efficiently from few examples and to pursue goals defined by innate drives. He presently is concentrating on a theory of consciousness that goes beyond currently leading theories of information integration, common workspace and high-level theories.

On March 30, Prof. von der Malsburg met with two faculty members — Prof.

Prof. Ido Tavor, IAS Distinguished Scholar Prof. Christoph von der Marlsburg and his academic host Prof. Talma Hendler

Liad Mudrik (Psychology) and Prof. Tom Schonberg (Neurobiology). He then delivered an academic lecture to faculty and students of the Sagol School of Neuroscience, followed by an engaging discussion session with a group of graduate students about their ongoing research.

On March 31, he met with Prof. Hendler and Prof. Asher for a scientific discussion and an informal tour of Jaffa.

On April 1, Prof. von der Malsburg visited the Sagol Brain Institute at Tel Aviv Sourasky Medical Center. He met with principal investigators and their graduate students across several research labs in the institute. Later that day, he led a seminar on the topic of wisdom, attended by all members of the Institute.

That evening, he joined a dinner gathering with additional faculty members from the Sagol School of Neuroscience (including Profs. Meltzer, Yovel, and Fried) as well as two distinguished colleagues from other institutions—Prof. Gotfried (Hebrew University) and Prof. Malach (Weizmann Institute).

On April 2, he spent the day with Prof. Hendler, continuing scientific discussions during a visit to Jerusalem.

" I would like to express my sincere appreciation to the Institute for Advanced Studies at Tel Aviv University, and in particular to Ms. Ronit Nevo, for their generous support in facilitating this important visit. Prof. von der Malsburg expressed great admiration for the high level of neuroscience research at Tel Aviv University and was deeply grateful for the warm hospitality extended to him by the IAS. "

Dr. Talma Hendler, MD, PhD (Academic host)

Prof. Mark Sandler

Prof. Mark Sandler visited the Institute of Advanced Studies for one week during April 2025.

Prof. Sandler is the Director of the Centre for Digital Music and a Professor of Signal Processing in the School of Electronic Engineering and Computer Science, at Queen Mary University of London, UK.

Prof. Sandler is a well-established world figure in audio and music technology, he published more than 500 articles, with well beyond 10,000 citations.

In the past, Prof. Sandler has conducted research in many areas in audio and music. These include: fractal and chaotic audio modelling, digital audio power amplification, sigma-delta modulation (SDM) for Digital to Analogue Conversion (DACs), immersive and surround sound (including ambisonic to binaural conversion, perceptual evaluation), high order all-pole modelling of musical instruments, drum synthesis, efficient architectures for EQ, music recommendation and play listing, music structure analysis, music source separation, key and chord analysis, vocal imitation for browsing of sound sample collections, linked data for music informatics and music cultural heritage.

Prof. Eran Socher, Prof. Noam Eliaz (Dean, Engeenering Faculty), IAS Distingsuihed Scholar Prof. Mark Sandler, Dr. Lior Arbel and academic host Prof. Ram Zamir

Prof. Sandler also spent around 10 years working in Computer Vision. Topics included several multi-processor architectures for high throughput processing, edge detection and thinning, Hough Transform for parametric detection of curves and lines in images, optical flow techniques.

Prof. Sandler was the keynote speaker in the Music-Tech workshop that was held in the faculty of engineering on April 22, 2025.

He also participated in the academia-industry panel, where he gave his wide perspective of music-tech as an inter-disciplinary academic field of teaching, research and collaboration.

Prof. Sandler's visit provided also several opportunities for discussions about the role of AI in signal processing, specifically in the audio and music-tech domains.

We believe that Prof. Sandler's visit is a beginning of a very fruitful connection that will continue in the years to come, to the benefit of both sides – QMU who is interested in connections with Israeli researchers and start-up companies, and TAU who is interested in developing a multi-disciplinary center for music and technology.

" I would like to thank the institute of advanced studies (IAS) of Tel Aviv University for the valuable help and support in bringing to Israel. I wish to express my thanks to Ronit Nevo who was very helpful in approving our request for support in very short notice in this hectic and complicated period. "

Prof. Rami Zamir (Academic Host)

Prof. Joel Eaves

Prof. Joel Eaves from the University of Colorado, Boulder, visisted the Institute of Advanced Studies as an IAS Distinguished Scholar. The dates of his visit were from May 12, 2025 to June 1, 2025.

Prof. Eaves is a Full Professor in the Department of Chemistry at the University of Colorado, USA. He is is an expert in theoretical chemistry with applications to spectroscopy, quantum information, nanoscience, and sustainability, theoretical and numerical treatments of quantum relaxation in the presence of realistic noise sources; modeling and interpreting time-resolved optical, infrared, and electron paramagnetic resonance spectra; vibrational spectra of water and atomistic simulations of nanoscale aqueous flows; exciton, electron, and hole dynamics in nanocrystals and at the molecule-nanocrystal interface. Recently, Prof. Eaves developed Tensor-based methods to solve quantum and classical stochastic differential equations.

Academic host Dr. Barak Hirshberg and IAS Distinguished Scholar Prof. Joel Eaves

During his stay, Prof. Eaves gave a Physical Chemistry seminar on May 22, 2025, entitled "Spin-Entangled Excitons from Singlet Fission," with many participants from the Chemistry and Physics departments.

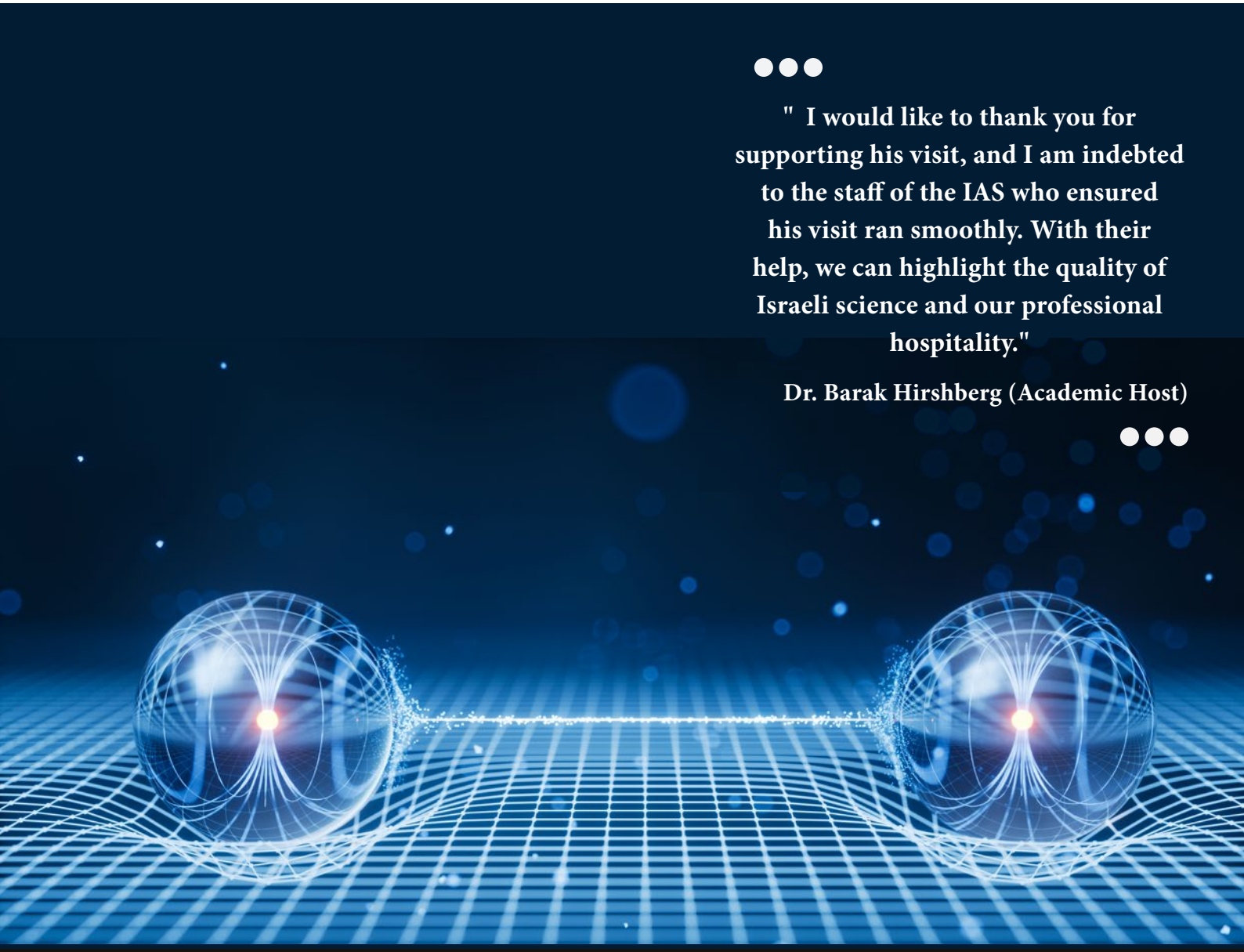
Prof. Eaves also gave two tutorial lectures on May 26 and May 28, 2025, entitled "Using Tensor Trains for Quantum Dynamics." Many students from the Chemistry, Physics, and Applied Mathematics departments and several faculty members attended.

Prof. Eaves also visited the laboratories of Professor Yael Roichman, Chemistry, Professor Yoav Lahini, Physics, and Professor Yasmine Meroz, Plant Sciences. He also had a detailed work meeting with Dr. Barak Hirshberg's group, potentially leading to future collaboration.

Prof. Eaves's visit also contributed more broadly to the Israeli theoretical Chemical Physics community, since Joel visited other institutions during his stay. Namely, the Technion on May 25th, and the Hebrew University on May 29th.

" I would like to thank you for supporting his visit, and I am indebted to the staff of the IAS who ensured his visit ran smoothly. With their help, we can highlight the quality of Israeli science and our professional hospitality."

Dr. Barak Hirshberg (Academic Host)



Lowy Distinguished Guest Professors

The Lowy Distinguished Guest Professor framework provides support for inviting eminent experts in a variety of academic fields from abroad. These visitors become Lowy Distinguished Guest Professors during their stay.

The guests are selected from a list of candidates, which is submitted by TAU faculty members. These candidates are renowned scholars who have reached leadership positions and outstanding achievements in their academic disciplines.

Candidates are selected by the IAS board members, on the basis of prominence in innovative and essential fields in scientific and academic development, while special priority is given to those areas in which collaboration between an IAS visitor and an existing research group at the University will be most beneficial.

Lowy Distinguished Guest Professors can be invited for a period of approximately one to two weeks or one to three months, and are expected to deliver a few lectures during their visit. Many of our guest gave lectures in their field of expertise, these lectures are frequently the highlight of the semester and are attended by academics from all over Israel.

Lowy Distinguished Guest Professors are free to carry out their own research at the University, to collaborate with other researchers in joint work, or to participate in any way they see fit in the life of the University.

2023-2024 LOWY DISTINGUISHED GUEST PROFESSORS

Professor Sacha Stern
The Department of Hebrew and Jewish Studies, University College London, UK

Professor Joseph Halpern
Joseph C. Ford Chair of Engineering Computer Science Department, Cornell University, USA

Professor Alex Evilevitch
Department of Experimental Medical Science, Faculty of Medicine, Lund University, Sweden

2024-2025 LOWY DISTINGUISHED GUEST PROFESSORS

Professor Eitan Tadmor

Department of Mathematics, Institute for Physical Science and Technology, University of Maryland, USA

Professor Dr. Reinhard Genzel

Nobel Prize Laureate in Physics (2020) • Director at the Max-Planck Institute for Extraterrestrial Physics, Garching, Germany

Professor Dr. Michael Waidner

Chair, Security in IT, Technical University of Darmstadt • Director, Fraunhofer Institute for Secure Information Technology (SIT) • Founding Director and CEO, National Research Center for Applied Cybersecurity ATHENE, Darmstadt, Germany

Professor Dr. Haya Schulmann

Institute of Computer Science, Goethe University in Frankfurt am Main • National Research Center for Applied Cybersecurity ATHENE, Darmstadt and Frankfurt, Germany

Professor Astrid von Busekist

Head, MA program in Political Theory (EDR), Sciences Po, Paris, France

Professor Alberto Melloni

Department of Education and Humanities, University of Modena and Reggio Emilia, Modena • UNESCO Chair for Religious Pluralism and Peace, Sapienza University, Rome • Director, Foundation for Religious Studies, University of Bologna, Italy

Professor Helena Florindo

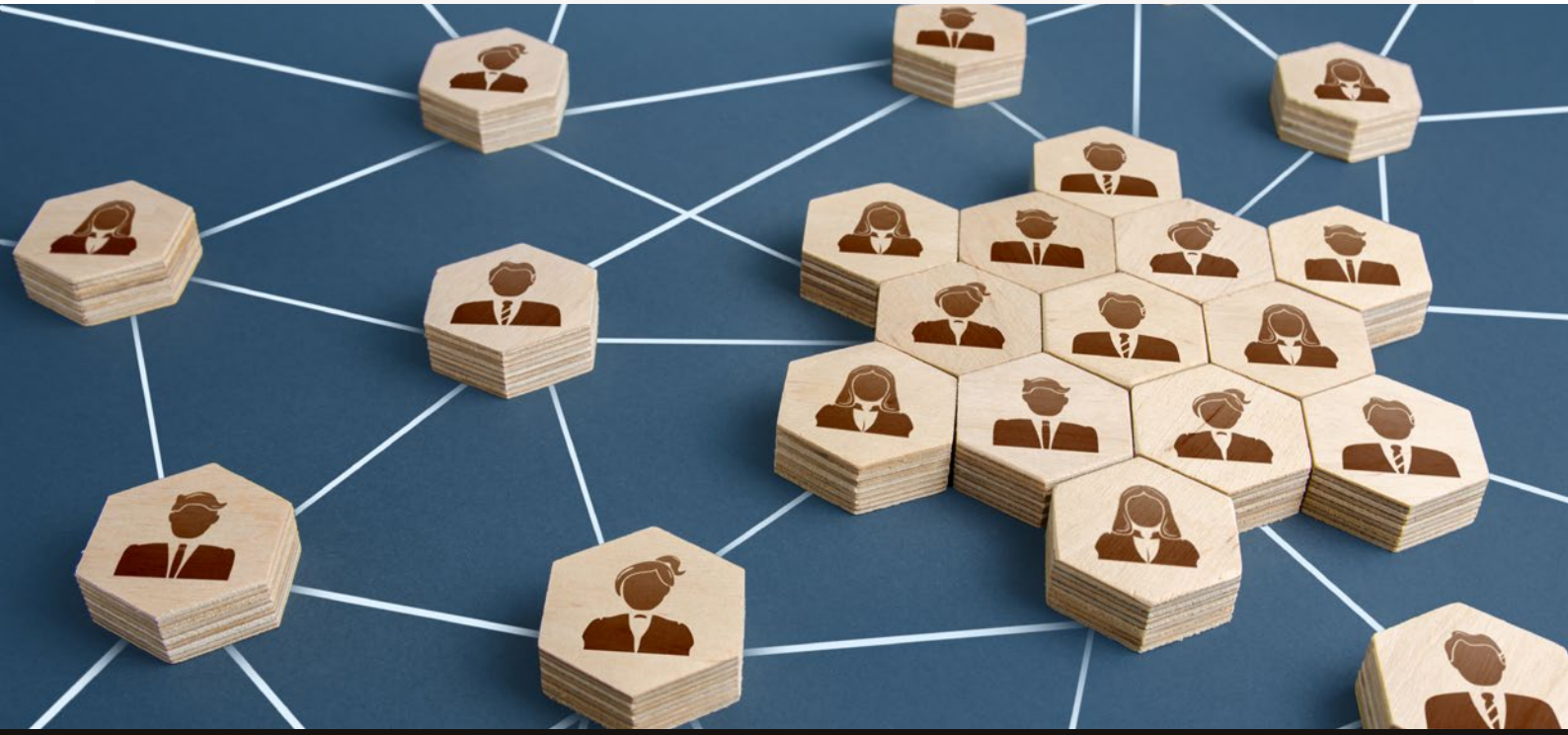
Department of Pharmacy, Pharmacology and Health Technologies, Faculty of Pharmacy, University of Lisbon, Portugal

Professor Dvira Segal

Director, Centre for Quantum Information and Quantum Control, Departments of Chemistry and Physics University of Toronto, Ontario, Canada

Professor Alex Evilevitch

Department of Experimental Medical Science, Faculty of Medicine, Lund University, Sweden



Prof. Sacha Stern

Prof. Sacha Stern, of University College London, was an IAS Lowy Distinguished Guest Professor from October 15, 2023 to January 14, 2024.

Prof. Stern is a well-known scholar of Jewish Studies, who specializes in the study of Jewish and non-Jewish calendars, and is a Full Professor at University College London, a Fellow of the British Academy, and the editor of the Journal of Jewish Studies.

An ancient historian by training, Prof. Stern specializes in late antique and early medieval Jewish history, rabbinic literature, and the history of calendars, time reckoning, and astronomy. He has made a world-leading contribution especially on the Jewish calendar, which he has developed as an entirely new area of research.

During his stay here, Prof. Stern joined the weekly meeting of his academic host Prof. Gideon Bohak's research group on "The Jewish Library in Late Antiquity," funded by

the European Research Council. Prof. Gideon Bohak is The Jacob M. Alkow Chair for the History of the Jews in the Ancient World, at the Department of Jewish Philosophy and Talmud.

The group is made up of two-postdoctoral fellows, two postdoctoral research assistants, two doctoral students, an MA student and an administrator, and they meet on a weekly basis to read together unpublished Aramaic texts from the Cairo Genizah and elsewhere. Prof. Stern was a welcome guest at their meetings, and contributed much from his own experience of editing unpublished Aramaic and Hebrew texts.

Moreover, two of the meetings were devoted to a text chosen by Prof. Stern, which he then helped the group decipher.

Prof. Sacha Stern delevering his Zoom Lecture in the framework of a meeting series in the Department of Jewish Philosophy and Talmud (Special series during wartime)

Needless to add, for the post-doctoral and doctoral candidates, working with Prof. Stern was a wonderful experience of seeing an excellent scholar engaging in high-level collaborative work.

Prof. Stern also presented his own research on three different occasions. First, at an online study-group organized by Prof. Ishay Rosen-Zvi (during the period when, because of the war in Gaza, the academic year was on hold). The lecture was titled: "The Jewish

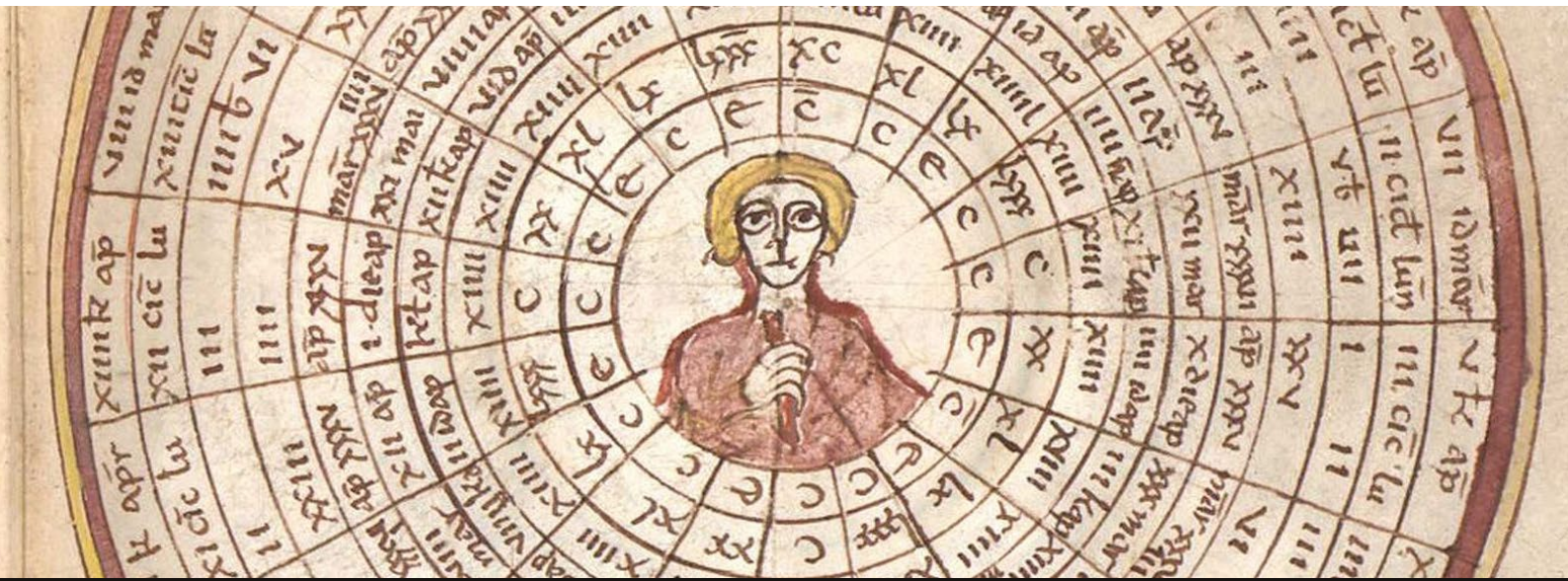
Prof. Sacha Stern delivering his lecture on January 1, 2024

origins of the Christian feasts, according to 'toledot yeshu'".

Then, he delivered an additional lecture at the departmental seminar of Jewish Philosophy and Talmud. And finally, at the Cohn Institute for the History and Philosophy of Science, where he delivered a talk titled "When bloodletting is dangerous: Medieval jews between talmudic heritage and latin dies aegri".

In his lecture, Prof. Stern discussed the importance of timing in the practice of bloodletting in Antiquity and the Middle Ages, which drew on medicine, astrology and calendar science.

He examined a list of prohibited days for bloodletting found in the Babylonian Talmud — clearly of Jewish origin — which, while influential among medieval European Jews, had little impact on Jewish communities such as those reflected in the Cairo Genizah. Between the 12th and 15th centuries, European Jews began adopting Christian bloodletting calendars, particularly the Latin dies aegri ('bad days'), which they adapted to the Jewish calendar. Prof. Stern highlighted how this process reflected both the transfer of medical



knowledge from Christian to Jewish communities and the effort to preserve Jewish identity by maintaining distinct temporal frameworks.

All three talks were very well received. In addition to his work with Prof. Bohak and his group, and the three lectures, Prof. Stern also pursued his own research, writing parts of his new book on the origins of the fixed rabbinic calendar. It is known from discussions he head with his academic host, that his three-month stay at TAU was very productive.

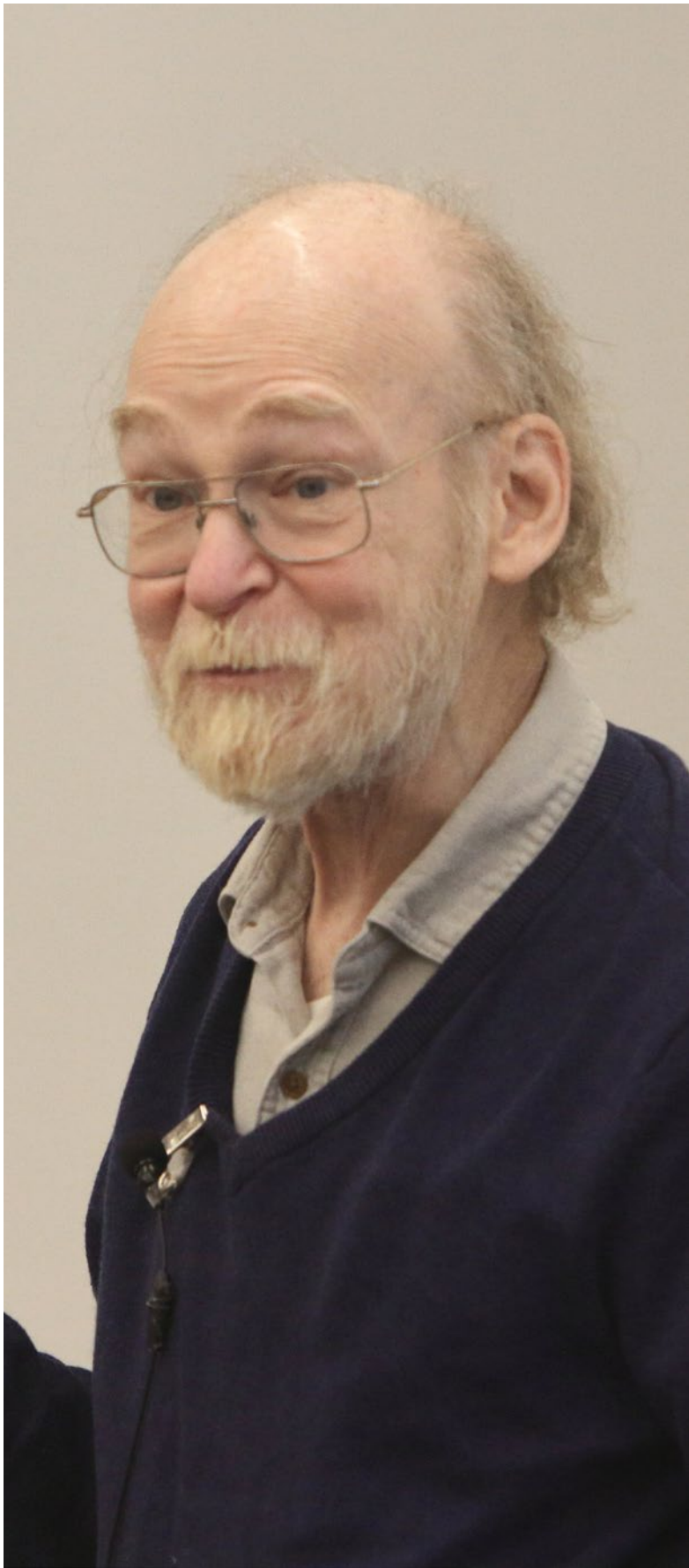
Finally, it needs to be added that Prof. Stern's visit began right after the terrible events of October 7 and the war which followed, and yet, he chose to stay although he could have gone back to his family in London.

Professor Sacha Stern and Professor Shaul Katzir (Director, Cohn Institute for the History and Philosophy of Science and Ideas)

" We were very glad to have Prof. Stern with us, and I would like to once again thank you and the rest of the IAS team for your wonderful hospitality, and to thank the IAS donors for making such visits possible. At a time when international collaboration is becoming more difficult for some Israeli academics, inviting prominent professors for extended stays at TAU becomes even more important than before "

Prof. Gideon Bohak (Academic Host)

Prof. Joseph Y. Halpern



Prof. Joseph Halpern has visited the Institute of Advanced Studies as a Lowy Distinguished Guest Professor during the Spring 2024.

Prof. Halpern is the Joseph C. Ford Chair of Engineering in the Computer Science Department at Cornell University, USA. He has coauthored three books ("Reasoning About Knowledge", "Reasoning about Uncertainty", and "Actual Causality"), and over 160 journal publications and 200 conference publications. He was designated a Highly Cited Researcher by the Institute for Scientific Information.

Prof. Halpern's major research interests are in reasoning about knowledge and uncertainty, qualitative reasoning, causality, belief revision, (fault-tolerant) distributed computation, game theory, decision theory, security, and causality. Together with his former student, Yoram Moses, he pioneered the approach of applying reasoning about knowledge to analyzing distributed protocols and multi-agent systems. He has coauthored five patents.

During his visit, Prof. Halpern met and collaborated with a large number of faculty members within Computer Science and beyond.

Prof. Halpern also gave a large number of research colloquia that drew large crowds from all over the university.

Prof. Joseph Halpern at his lecture on February 4, 2024 at Checkpoint Building

Prof. Halpern gave two Computer Science Colloquia on the dates of February 4 and 11 on the topics of "Actual Causality: A Survey", "A Causal Analysis of Harm". Additionally, on February 14, he gave a presentation on "Using Causal Models to Define Explanation" in the Machine Learning Research Seminar. Finally, on April 4, he gave a presentation on "Language-Based Decision Theory with Causality" in the FILOFOCS workshop.

Most of his presentations were related to "models for causality"—in essence, on formal models for reasoning about the millenia-old question of determining whether an event A caused an event B. These models can be used to provide formal models for causality, explanation, responsibility, blame, intention, and harm. Halpern's talks ranged from more high-level presentations that surveyed his seminal contributions to the area of Causality and that appealed to audiences from Computer Science, Economics, Philosophy and Linguistics and led to lively cross-disciplinary discussions, to more specialized talks for a Computer Science audience on the topic of "explainability of machine learning models", one of the hottest current topics in Computer Science.

On top of these research presentations, Prof. Halpern met with faculty and students from CS (Rafael Pass, Michal Feldman, Yotam Alexander, and Nimrod Harel), Economics (Ran Speigler, Ariel Rubinstein, Tzachi Gilboa, Dov Samet), Psychology (Nira Liberman, Marius Usher), Law (Ariel Porat), and, Zoology (Arnon Lotem).

During his visit, Prof Halpern worked on research on the following topics:

1. With his academic host, Prof. Pass, (a) working on how to provide and reason about new notions of causality, (b) trying to apply causal models to analyzing

text from the Talmud, (c) using game-theoretic technique for analyzing so-called "autonomous lending pools" on blockchains.

2. With Yotam Alexander, on notions of explanation.
3. With Nimrod Harel, on relating type causality (90% of people who smoke get cancer) to actual causality ("the fact that Willard smoked for 30 years is why he got cancer).
4. With Arnon Lotem (and a student, Asasf Sharf) on writing a program to test features of their computational model of a brain. The discussions with Nira Lieberman centered on trying to apply this framework to model various human behaviors.

Academic host Prof. Rafael Pass (School of Computer Science) and Lowy Distinguished Guest Professor Joseph Halpern

5. With Marius Usher, on responsibility and blame.

Overall, the visit of Prof. Halpern was a success. Prof. Pass was very grateful to the IAS and its donors for making the important visit possible.

" Despite the terrible situation, I had a wonderful and productive visit. I'd like to thank the IAS for its support. "

Prof. Joseph Halpern

Prof. Alex Evilevitch

It was a pleasure to host Prof. Alex Evilevitch at Tel Aviv University as a Lowy Distinguished Guest Professor during the spring semester 2023-2024.

Prof. Evilevitch is a professor at the Department of Experimental Medical Science, Faculty of Medicine, Lund University, Sweden.

Prof. Evilevitch leads innovative and translational research in herpes- and corona virology, gene therapy as well as development of antiviral therapeutics that does not lead to development of resistance. He is the sole inventor of two approved US patents for a pioneering broad-spectrum method for treatment of all nine human herpesviruses as well as animal herpes (veterinary use), resistant to viral mutations.

He is an internationally renowned researcher who conducts research in the boundary area between cell biology, structural biology and biophysics with medical relevance. Prof. Evilevitch has also close ties with the Israeli Science. He annually serves as an external grant reviewer on the invitation from the Israel Science Foundation (ISF).

Prof. Evilevitch's visit was highly productive and successful. He actively participated in numerous meetings, fostering valuable collaborations

Academic host Prof. Ayelet Lesman, Lowy Distinguished Guest Prof. Alex Evilevitch and Prof. Adi Barzel (School of Biochemistry Neurobiology Biophysics)

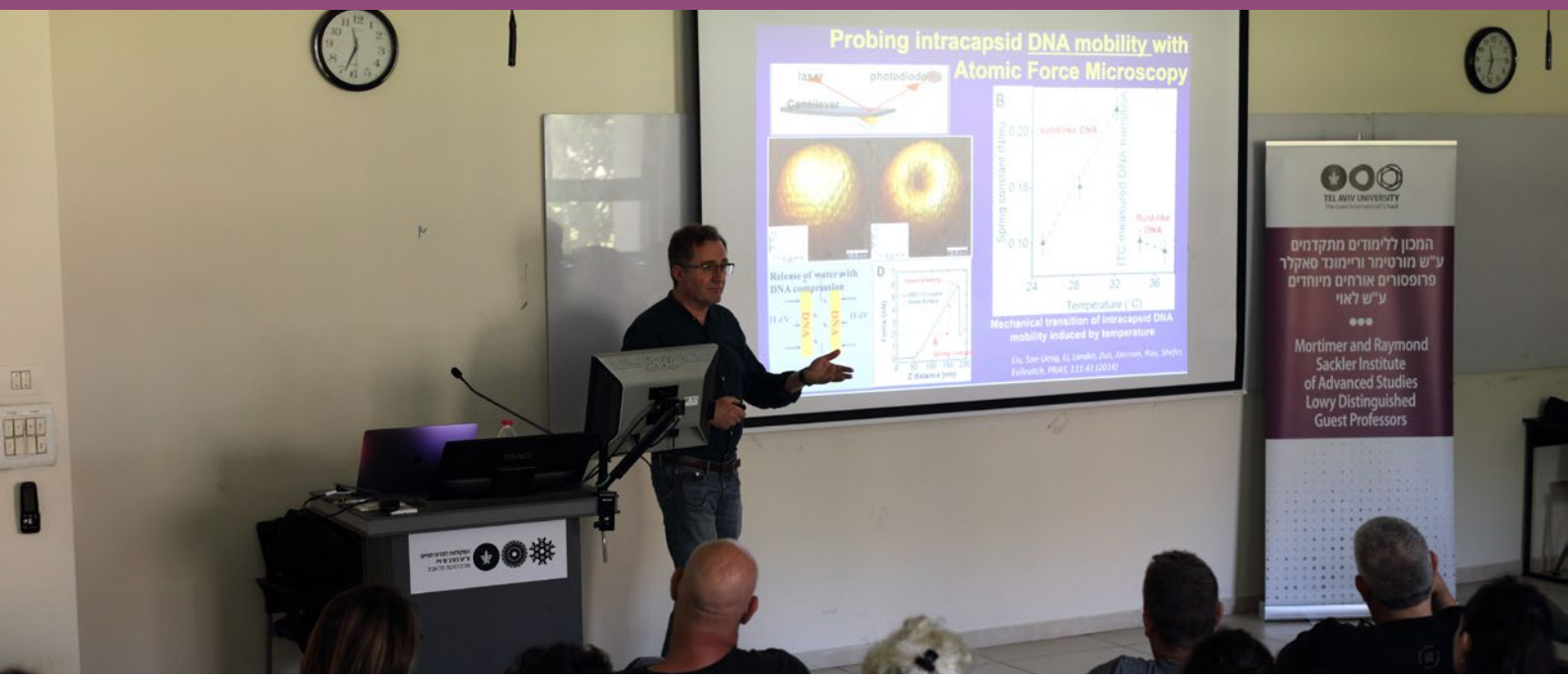
across a wide range of fields, including Engineering, Exact Sciences, Life Sciences, and Medicine.

During his stay, he initiated with his academic host Prof. Ayelet Lesman (School of Mechanical Engineering), a promising collaboration focused on the spread of herpes viruses between living cells in tissues. This joint effort, involving Prof. Oren Kobiler (Medicine, TAU) and Dr. Raya Sorkin (Chemistry, TAU), marks the beginning of an exciting interdisciplinary project. Their respective research backgrounds - Prof. Evilevitch in the physics of viruses and Prof. Lesman's work in biomechanics - complement each other in ways that open up innovative avenues for investigation.

In addition to this collaboration, Prof. Evilevitch initiated other significant collaborations with researchers at TAU, such as Prof. Adi Barzel (Life Sciences, TAU) and Prof. Tamir Tuller (Biomedical Engineering, TAU), exploring new technologies for gene therapy using viruses. He also had the opportunity to meet in person with many other faculty members across campus.

Prof. Evilevitch delivered two lectures during his visit. One in the Life Sciences Department, on June 25 titled: "Temperature-Induced Dna Density Transition In Phage Λ Capsid Revealed With Contrast-Matching Sans". The talk presented new insights into the temperature-dependent structural transition of DNA inside bacteriophage λ, showing how changes in genome packing facilitated rapid DNA ejection during infection.

The other at the Biosoft Center, on June 26 titled: "Intranuclear Hsv-1 Dna Ejection Induces Major Mechanical Transformations Suggesting Mechanoprotection Of Nucleus Integrity". The talk presented findings on how



Prof. Alex Evilevitch at his lecture on june 25, 2026

the nucleus responds mechanically to the early stages of herpes simplex virus 1 (HSV-1) infection. Using AFM mapping on reconstituted nuclei, it was shown that chromatin stiffens while the nuclear lamina softens following viral DNA ejection, suggesting a protective mechanism that maintains nuclear integrity and supports viral replication.

Each presentation was tailored to its audience, offering a unique perspective on his cutting-edge research. Both seminars were met with great enthusiasm and generated stimulating discussions.

Looking ahead, Prof. Evilevitch is planning another extended visit to Israel in December 2024, with the aim of further strengthening ties with Tel Aviv University.

Viruses may inject their DNA into a host cell synchronously or randomly

" I would like to express my sincere appreciation for the exceptional hospitality provided by the IAS. I am deeply grateful for the generous support of the IAS, made possible by its donors, which enabled Prof. Evilevitch's visit during these complex times."

Prof. Ayelet Lesman (Academic Host)

Prof. Alex Evilevitch

(Second Part of the Visit)

We had the privilege of hosting Prof. Alex Evilevitch at Tel Aviv University (TAU) for the second part of his visit, as a Lowy Distinguished Visiting Professor between June 9, 2025, to July 1, 2025. Prof. Evilevitch has been engaging in interdisciplinary academic exchange and collaborative discussions across multiple departments. The visit included lectures, scientific meetings, and participation in regional academic events as follows.

During his visit, Prof. Evilevitch delivered two invited lectures. The first lecture took place on June 29, 2025, in the framework of the Department of Biological Sciences and was titled "Phase Transitions of Packaged DNA in Phage Capsids: A Thermally Triggered Switch for Viral Infection".

This lecture, hosted by Prof. Eliora Ron, focused on the role of thermally induced phase transitions in viral DNA packaging and release. Prof.

Prof. Eliora Ron opening the lecture of Prof. Alex Evilevitch on June 29, 2025.

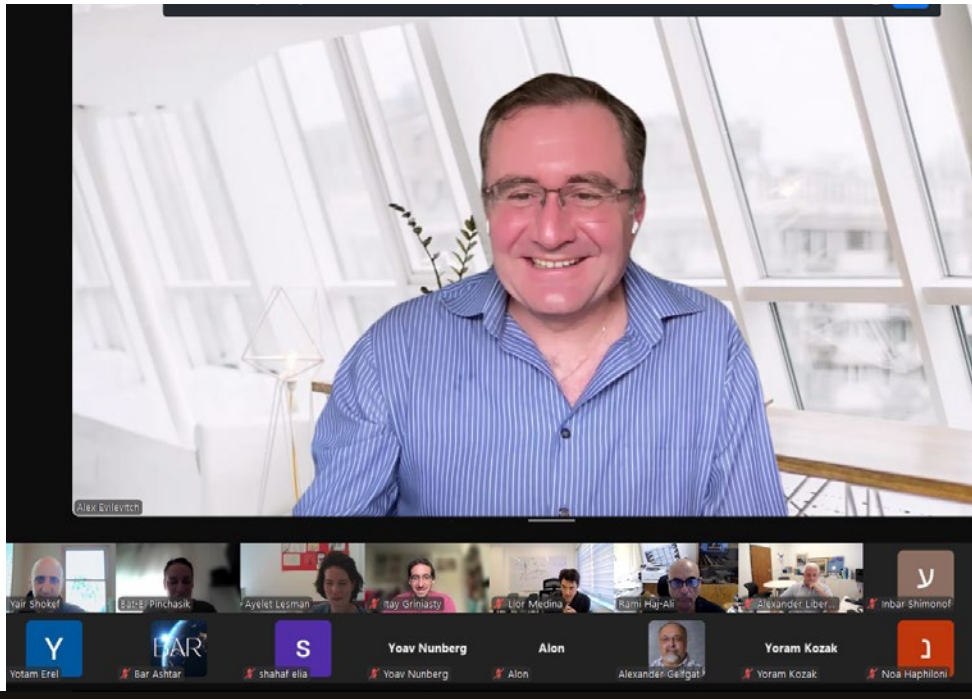
Evilevitch discussed recent findings on the physical mechanisms viruses use to regulate genome ejection, emphasizing temperature-dependent structural changes within the capsid.

Due to the war with Iran, the second lecture, originally planned as a frontal event, was held via Zoom on July 7, 2025, under the auspices of the Department of Mechanical Engineering. It was titled "Tensile Forces in Virology: Mechanical Drivers of Genome Release and Host Cell Transformation During Infection."

The hosts were Prof. Ayelet Lesman and Dr. Bat El Pinchasik. This interdisciplinary lecture explored the biomechanics of virus-host interactions, with a focus on the role of tensile forces in viral genome release and the mechanical transformations induced in host cells during infection.

In addition to the lectures, Prof. Evilevitch held individual and group meetings with several researchers and faculty members to discuss ongoing research and potential collaborations:

Well-attended Zoom Lecture on July 7, 2025



His academic host, Prof. Ayelet Lesman (School of Mechanical Engineering): They discussed the progress on their current collaborative project and planned upcoming experimental delays and rescheduling.

Dr. Adi Barzel (President, The Israeli Society of Gene and Cell Therapy; School of Neurobiology, Biochemistry and Biophysics): They exchanged ideas regarding viral gene delivery systems and their mechanical modulation in therapeutic contexts.

Prof. Haim Diamant (Department of Chemical Physics): The meeting centered around the theoretical aspects of soft matter physics as applied to viral dynamics and membrane interactions.

Prof. Evilevitch also attended the Biophysics Workshop held on June 12 at the Hebrew University of Jerusalem, upon invitation from Dr. Alexandra Tayar. The workshop provided a vibrant platform for exchange with researchers in the fields of molecular biophysics, soft matter, and biological mechanics.

The visit to TAU was a valuable experience that fostered meaningful academic exchange, interdisciplinary dialogue, and the strengthening of collaborative ties. We look forward to continuing the collaboration with Prof. Evilevitch in the near future.

" I sincerely grateful for the Institute of Advanced Studies for supporting Prof. Evilevitch visit, and for Ms. Ronit Nevo from the Administrative Office for her valuable support along the way."

Prof. Ayelet Lesman (Academic Host)

Prof. Eitan Tadmor

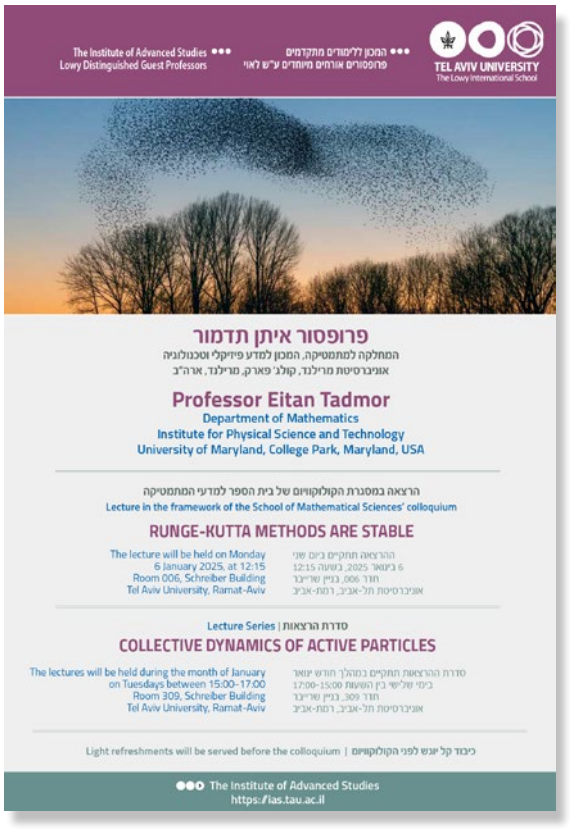
It was a pleasure to host Prof. Eitan Tadmor at Tel Aviv University as a Lowy Distinguished Guest Professor during January 2025.

Prof. Tadmor is a Distinguished University Professor at the University of Maryland, with a joint appointment at the Department of Mathematics and the Institute for Physical Sciences and Technology.

Prof. Tadmor published more than 190 research papers, mostly in Numerical Analysis and Applied Partial Differential Equations and was listed on the ISI most cited researchers in Mathematics.

Prof. Tadmor is well known for his contributions to the theory and computation of Partial Differential Equations with diverse applications to shock waves, kinetic transport, incompressible flows, image processing, and self-organized collective dynamics. He introduced novel ideas of multi-scale descriptions of images, and in recent years, leads an interdisciplinary research program in modeling and analysis of collective dynamics with applications to flocking and opinion dynamics.

Prof. Tadmor delivered numerous lectures during his visit. On January 6, 2025, he gave a talk at the Math Colloquium on the stability of Runge-Kutta methods. The talk addressed the limitations of standard stability arguments for Runge-Kutta methods when applied to large systems of ordinary differential equations. The talk addressed the well-known limitations of



Invitation to the lecture of Prof. Eitan Tadmor

standard stability arguments for Runge-Kutta methods when applied to very large systems of ordinary differential equations (ODEs). While Runge-Kutta methods are widely used for numerical integration, traditional stability analyses often fail to adequately explain their behavior in large-scale applications. The speaker presented a new stability theory that overcomes these shortcomings, providing a more comprehensive framework for understanding the performance of Runge-Kutta methods in complex systems. Several examples were demonstrated to illustrate the practical effectiveness and improved reliability of this new approach.

Furthermore, Prof. Tadmor gave a lecture series computed of four two-hour talks (so, in fact, a mini-course) on "Collective dynamics of active particles". The lecture series focused on recent mathematical developments in the study of collective dynamics of active particles. Covering four main topics — environmental averaging, mean-field limits, large crowd dynamics, and long-time behavior — the series explored how local interactions among individual agents lead to the emergence of complex, large-scale self-organized patterns. These patterns include phenomena such as consensus formation, flocking behavior, synchronization, and multi-species dynamics. The lectures examined various mathematical models and analytical techniques used to describe and predict these behaviors in natural and social systems.

IAS Guest Professor Eitan Tadmor and his academic host Professor Yaron Ostrover

All lectures were well attended, with the lecture series on collective dynamics attracting researchers across disciplines, e.g., Engineering, Exact Sciences, Life Science.

During his stay, Prof. Tadmor had the opportunity to meet and initiate

promising collaborations with multiple faculty members at the School of Mathematical Sciences (Prof. Ditkovski and Prof. Shkolinsky) and from other schools and faculties across TAU.

To summarize, Prof. Tadmor's visit was highly productive and successful. Prof. Tadmor give numerous talks, actively participated in other meetings, fostered valuable collaborations across a wide range of fields. Prof. Tadmor is planning another extended visit to Israel in January 2026, with the aim of further strengthening ties with Tel Aviv University.

Prof. Eitan Tadmor delivering his lecture to a full audience

" Thank you once again for making this successful visit possible. I am deeply grateful for the generous support of the IAS during these challenging times."

Prof. Lior Bary-Soroker (Academic Host)

Prof. Dr. Reinhard Genzel

IAS Director and academic host Prof. Marek Karliner and Lowy Distinguished Guest Prof. Dr. Reinhard Genzel

Professor Dr. Reinhard Genzel, 2020 Nobel Prize Laureate in Physics, visited Tel Aviv University as a Lowy Distinguished Guest Professor of the Institute of Advanced Studies, for the academic year 2024/2025.

Prof. Dr. Reinhard Genzel, is the 2020 Nobel Prize Laureate in Physics, jointly with Andrea Ghez, for the discovery of a supermassive compact object at the centre of our galaxy. He is a Director at the Max Planck Institute for Extraterrestrial Physics, Garching, Germany, and a Scientific Member of the Max Planck Society, Munich, Germany. He is a Professor Emeritus of Physics and Astronomy at the University of California, Berkeley, California, USA, where he still serves as a Professor of the Graduate School. He is also an Honorary Professor at the Ludwig Maximilian University, Munich, Germany.

Prof. Dr. Genzel's research interests are in experimental astrophysics. His research group is studying the physical processes and the evolution of active galaxies, particularly their central regions. One key issue they have been pursuing is the question whether the accretion onto massive black holes, or star formation powers active and luminous

galaxies. They are also engaged in testing the paradigm that active galactic nuclei indeed all contain massive black holes. They also have been developing novel instrumentation, mainly in the infrared and submillimeter range, for large ground-based, airborne and space telescopes.

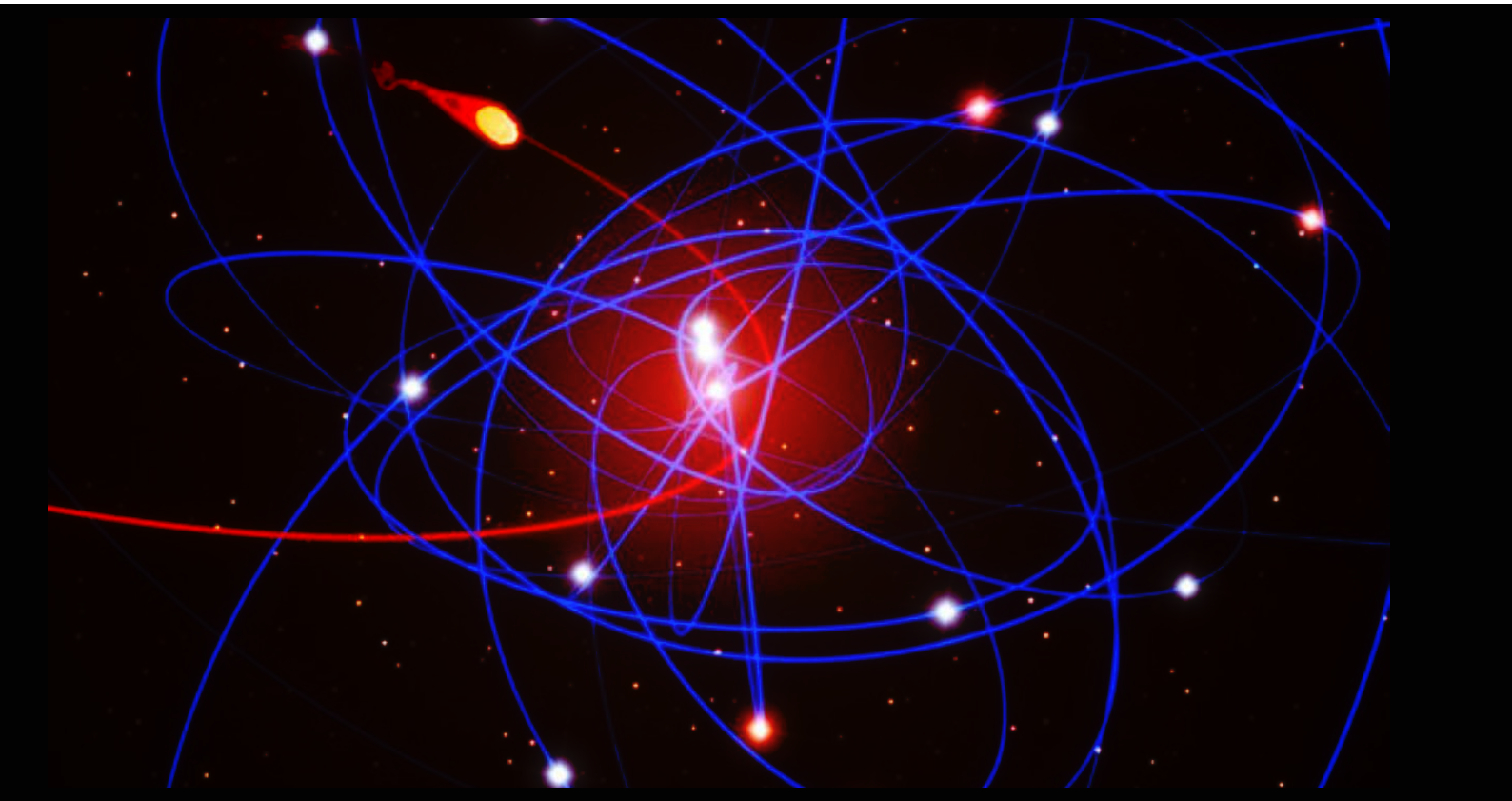
Prof. Dr. Genzel gave a lecture titled "Black Holes in Galaxies: Experimental Evidence and Cosmic Evolution". In his talk, Prof. Dr. Genzel described how a century after Albert Einstein's presentation of General Relativity and Karl Schwarzschild's first solution, three experimental techniques have made remarkable progress in proving the existence of the Schwarzschild/Kerr black hole solution. He described the impressive progress of high resolution near-infrared radio imaging, interferometry and precision measurements of gravitational waves in the Galactic Center and other galaxies. He then gave an overview of what we now know about the cosmic co-evolution and growth of galaxies, as well as black holes. He finished with the riddle of massive black holes detected by JWST, only a few hundred Myr after the Big Bang.

In addition to his lecture, Prof. Dr. Genzel participated in a special interview with Prof. Amiel Sternberg from Tel Aviv University's School of Physics and Astronomy. The conversation, which was part of the podcast series "Science, Quantum and Space", delved into Prof. Dr. Genzel's remarkable journey in science and astrophysics. The interview highlighted

the groundbreaking research that led to the discovery of the supermassive black hole at the heart of our galaxy, as well as the strong scientific collaboration between Germany and Israel. This inspiring episode celebrated Prof. Genzel's life dedicated to unlocking the mysteries of the universe and his lasting contributions to astrophysics.

During his visit, Prof. Dr. Genzel engaged actively with the academic community at the School of Physics and Astronomy, holding in-depth discussions with students, postdoctoral researchers, and faculty members. His interactions fostered scientific exchange, inspired young researchers, and contributed meaningfully to the vibrant intellectual atmosphere of the School.

The IAS is proud to promote academic excellence by inviting and hosting such eminent experts. Tel Aviv University and the international scientific community continue to benefit from these vital exchanges, fostering global partnerships in the pursuit of understanding the cosmos.



Prof. Joshua Trachtenberg

Prof. Joshua Trachtenberg visited the Institute of Advanced Studies at TAU, between March 13, 2025 and June 13, 2025. Despite the events that occurred during these dates, Prof Trachtemberg kept his commitment to stay in Israel and managed to contribute with his presence, comments and knowledge to TAU's community, during that many refused to even talk with TAU remotely.

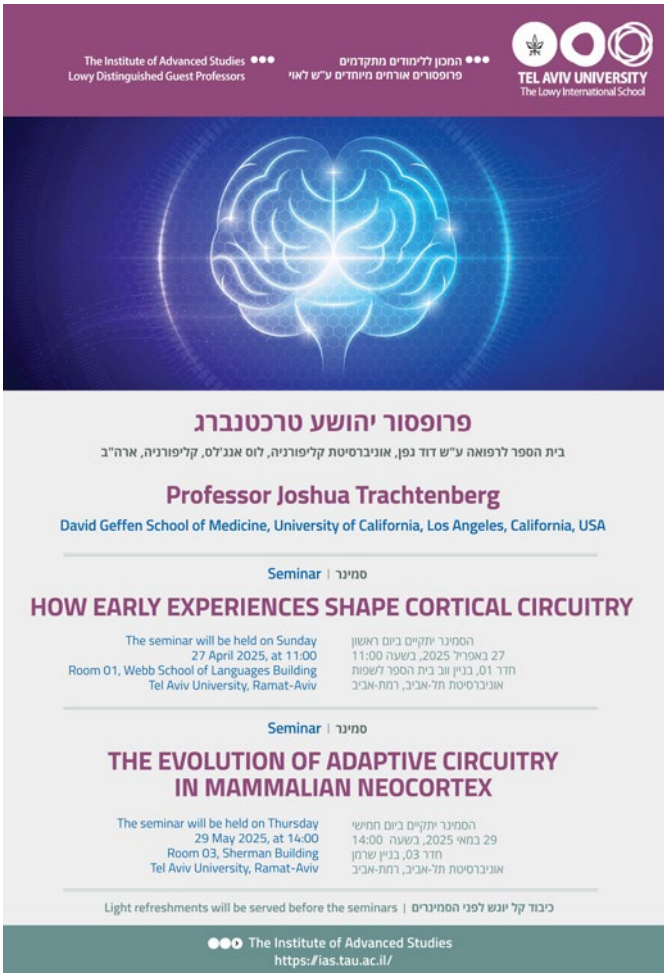
Over a three-month period, Prof. Trachtenberg made substantial contributions to the intellectual life of the School of Neurobiology, Biochemistry and Biophysics, as well as the broader neuroscience community in Israel.

Prof. Trachtenberg delivered two campus seminars. The first one on April 27, titled "How early experiences shape cortical circuitry" . The second seminar took place on May 29, and was titled "Evolution of adaptive circuitry in mammalian neocortex". These seminars drew strong attendance and lively discussion. Both talks showcased his group's recent advances, highlighted open questions of general interest, and spurred several follow-up meetings across institutions.

The visit was intentionally collaborative. At Tel Aviv University (TAU), Prof. Trachtenberg met with

Dr. Arseny Finkelstein, Dr. Tal Laviv, Dr. Mark Shein Idelson, Prof Inna Slutzky, and Prof. Tal Dvir. Discussions centered on complementary methodological strengths, opportunities for joint experiments, and avenues to share datasets and best practices in RNA sequencing and other topics related to the genetic classification of neuronal populations.

In addition, Prof. Trachtenberg visited and engaged with scholar from other campuses. At The Hebrew University of Jerusalem (HUJI), he met with Prof.



Invitation to the lectures of Prof. Trachtenberg.

IAS Guest Prof. Joshua Trachtenberg and his academic host Prof. Pablo Blinder.

Inbal Goshen, where the conversation focused on circuit-level mechanisms and how emerging tools could bridge cellular activity with behavior. At The Weizmann Institute, he met with Prof. Michal Rivlin, Prof. Ofer Yizhar, Prof. Yaniv Ziv, Prof. Ivo Spiegel, and Dr. Yoav Livneh, comparing approaches for in vivo imaging, optogenetic perturbation, and large-scale data analysis pipelines.

Across these meetings, the scholar provided clear, constructive feedback and identified concrete next steps for collaboration and contributed to strengthening international academic tights between Israeli scientiest and members of his department at UCLA.

A particularly valuable component of the visit was his sustained engagement with trainees at Prof. Pablo Blinder's laboratory. Prof. Trachtenberg spent focused time with students reviewing experimental designs, troubleshooting analysis workflows, and refining

presentation of results. His comments were consistently insightful and actionable, leading several students to revise their data-collection plans, clarify hypotheses, and strengthen statistical approaches.

Prof. Trachtenberg also offered practical advice on research communication — how to structure figures, motivate questions, and frame limitations — which students have already begun to implement.

" I would like to use this opportunity to thank the Institute of Advanced Studies for the support provided to host Prof. Joshua Trachtenberg."

Prof. Pablo Blinder (Academic Host)

Prof. Dr. Michael Waidner

Academic host Prof. Anat Bremler Barr and Prof. Dr. Michael Waidner

Professor Dr. Michael Waidner, Chair, Security in IT at the Technical University of Darmstadt; Director of the Fraunhofer Institute for Secure Information Technology (SIT); Founding Director and CEO of the National Research Center for Applied Cybersecurity ATHENE, Darmstadt, Germany, visited the Institute of Advanced Studies (IAS) from 24 March 2025 to 24 June 2025.

Prof. Dr. Waidner is a member of the German Academy of Science and Engineering acatech (2020), a distinguished scientist of the Association for Computing Machinery ACM (2008), a fellow of the Institute of Electrical and Electronics Engineers IEEE (2004) and a member of various advisory boards for industry and government. He is the inventor of 25 patents and the author of over 160 articles in scientific conferences and journals.

Prof. Dr. Waidner delivered a colloquium talk titled "Science with real-world impact: ATHENE the National Research Center

IAS Guest Prof. Dr. Michael Waidner delivering his lecture on May 4, 2025

for Applied Cybersecurity and Opportunities for German Israeli Collaboration " on Sunday, May 4. The talk was attended by faculty members of the School of Computer Science.

In addition, Prof. Dr. Waidner delivered the same talk on Sunday, May 5, 2025, as part of the Advanced Topics in Computer Networks Seminar. There the audience was graduate students of computer science.

During the visit Prof. Waidner initiated a formal student exchange program with Darmstadt and Frankfurt universities with TAU in computer science.

Beyond his formal lectures, Prof. Dr. Waidner played an active role in the academic life of the School of Computer Science. Throughout his visit, he engaged with faculty and students in discussions on current challenges in cybersecurity and computer systems, offering thoughtful insights drawn from his extensive experience. His participation in seminars and informal meetings added depth to the school's intellectual discourse and stimulated productive exchanges across research groups.

The connections established during his stay are expected to strengthen collaborations between the School and leading international research centers in his field.

Prof. Dr. Haya Schulmann

Professor Dr. Haya Schulmann from the Institute of Computer Science, Goethe University Frankfurt am Main, and the National Research Center for Applied Cybersecurity (ATHENE), Darmstadt and Frankfurt, Germany, visited the Institute of Advanced Studies (IAS) from 24 March 24 June 24, 2025.

Prof. Dr. Schulmann is one of the most renowned and successful cybersecurity researchers in Germany. She received several distinctions for her work, among them: the prestigious LOEWE top professorship (2,1 M. Euro funding, 2022); the German IT Security Award from the Horst Görtz Foundation (2021); the Cisco Research Center Award (2018); the Microsoft Azure Research Awards (2017, 2015); the Fraunhofer-Gesellschaft TALENTA Excellence Award for Female Researchers (2015); and the Applied Networking Research Prize from the IETF/IRTF (2015). She was an ICANN Research Fellow (2014, 2013).

Prof. Dr. Schulmann is the author of over 60 articles in leading international scientific conferences and journals. Prof. Dr. Schulmann's goal is to make the Internet secure.

IAS Guest Prof. Dr. Haya Schulmann at her lecture on April 6, 2025

Prof. Dr. Schulmann carries research in all aspects of systems and network security, explore vulnerabilities in the Internet infrastructure and services, and design defences using tools from various research areas, such as machine learning, program analysis, fuzzing and algorithms.

Prof. Dr. Schulmann delivered a colloquium talk titled "Building a Secure Internet: RPKI's Stumbling Speedrun to the Top" on Sunday, April 6. The talk, attended by faculty members of the School of Computer Science, addressed the challenges of securing Internet routing and provided a comprehensive overview of the current state of RPKI deployment.

Prof. Dr. Schulmann also participated in the Israeli Networking Day, held an event that attracted more than 150 networking researchers from academia and industry. There, she presented her talk "Building a Secure Internet: RPKI's Stumbling Speedrun to the Top."

In addition, Prof. Dr. Schulmann delivered a lecture titled "RPKI: Not Perfect but Good Enough?" on Sunday, May 18, 2025, as part of the course Advanced Topics in Computer Networks Seminar.

On June 16, 2025, Prof. Schulmann gave a talk within the Advanced Topics in Computer Networks course, to graduate students, laying the foundation for future collaboration between students at Tel Aviv University and Goethe University Frankfurt. Due to the war with Iran, this lecture was delivered via Zoom.

Academic host Prof. Anat Bremler Barr, IAS Guests Prof. Dr. Haya Schulmann and Prof. Dr. Michael Waidner

Beyond her formal presentations, Prof. Schulmann took an active part in the academic life of the School of Computer Science. She engaged in lively discussions with faculty members and students, attended research group meetings, and provided valuable feedback on ongoing projects. Her visit contributed significantly to the intellectual atmosphere of the school, inspiring new ideas and perspectives. Moreover, her interactions helped foster meaningful collaborations between local and international researchers, laying the groundwork for future joint publications and research initiatives.

" I would like to express my sincere appreciation to the IAS for its generous hospitality and continued support of leading computer scientists through this fellowship program. The welcoming and stimulating environment provided by the IAS plays a vital role in enabling collaboration."

Prof. Anat Bremler Barr (Academic Host)

Prof. Astrid von Busekist

Prof. Astrid von Busekist, a distinguished political theorist and senior faculty member at Sciences Po Paris, was hosted at Tel Aviv University during the spring semester of 2025 as a Lowy Distinguished Guest Professor at the Institute of Advanced Studies.

Prof. von Busekist is internationally recognized for her scholarship in political theory, nationalism, and minority rights, and her visit was very valuable to TAU.

In addition to her academic profile, Prof. von Busekist serves as the main liaison person between Sciences Po Paris and TAU. In this capacity, she plays a central role in facilitating student exchange and academic collaboration between the two institutions. Her visit here was significant in this regard, as she was able to engage students and professors in both institutions to sign up and participate in multiple programs in the two higher education institutions.

During her stay between April 14th to June 2nd, 2025, Prof. von Busekist took an active part in the academic life of TAU, engaging in teaching, delivering public lectures, contributing to conferences, and participating in dialogue with faculty and students.

Her main activities included the following: On April 23, 2025, she delivered a guest lecture as part of the Faculty of Social

Sciences' Excellence Fellowship Program, titled "Hannah Arendt and the War of Races". The lecture was well-attended and generated lively discussion.

Throughout the spring semester, she taught an introductory course in Political Science and Political Theory for the Gesher TAU Program, a joint pilot initiative of the Faculty of Social Sciences and the Lowy International School for French-speaking new immigrants.

She made a notable contribution to the Boris Mints Institute Annual Conference, where she delivered a talk on "Crises and Concepts" on May 19th.

Former IAS Administrative Director Ms. Ronit Nevo, IAS guest Prof. Astrid von Busekist and Ms. Ayelet Fishman, the new Administrative Director of the IAS

Additionally, Prof. von Busekist held extensive meetings with TAU faculty and research students, engaging in dialogue and laying the groundwork for future projects.

Prof. Alberto Melloni, his acedmic host Prof. Tami Herzig, Dean of the Faculty of humanities Prof. Gali Cinamon, Prof. Milette Shamir, Vice President for International Academic Collaboration and Prof. Naama Cohen Hanegbi

Prof. Alberto Melloni

In May 2025, the Morris E. Curiel Institute for European Studies in collaboration with the Fred W. Lessing Institute for European History and Civilization collaborated in hosting Prof. Alberto Melloni, the Lowy Distinguished Guest Professor at the Lester and Sally Entin Faculty of Humanities at Tel Aviv University.

Prof. Melloni is Vice Dean at the University of Modena and Reggio Emilia in Italy. He is also the Secretary of the Fondazione per le Scienze Religiose (FSCIRE) in Bologna (with brances in Palermo and in Venice), one of the world's most important research centers for Religious Studies. In addition, Prof. Melloni holds the UNESCO chair for Religious Pluralism and Peace at Sapienza University in Rome (the largest university in Europe).

During his visit to the Tel Aviv University campus, Prof. Melloni, a leading expert in the fields of the history of Christianity and Church history, held a series of meetings that has enriched faculty and students' understanding of inter-religious interactions in European

Panorama of the Saint Peter's Square against the dramatic sky background in Vatican City, Italy

history. A world-renowned authority on Christianity and Church History, who has written extensively on the history of the papacy and specifically on the conclave.

Prof. Melloni visited us just a few days after the closing of the 2025 Conclave and the election of Pope Leo XIV. This made it an even greater opportunity for graduate students who participated in his May 13th workshop on the subject to reflect on the major transformations the conclave has undergone throughout its history — from late Antiquity to the present — the changing significance of its secrecy, and the meaning of the ritual itself.

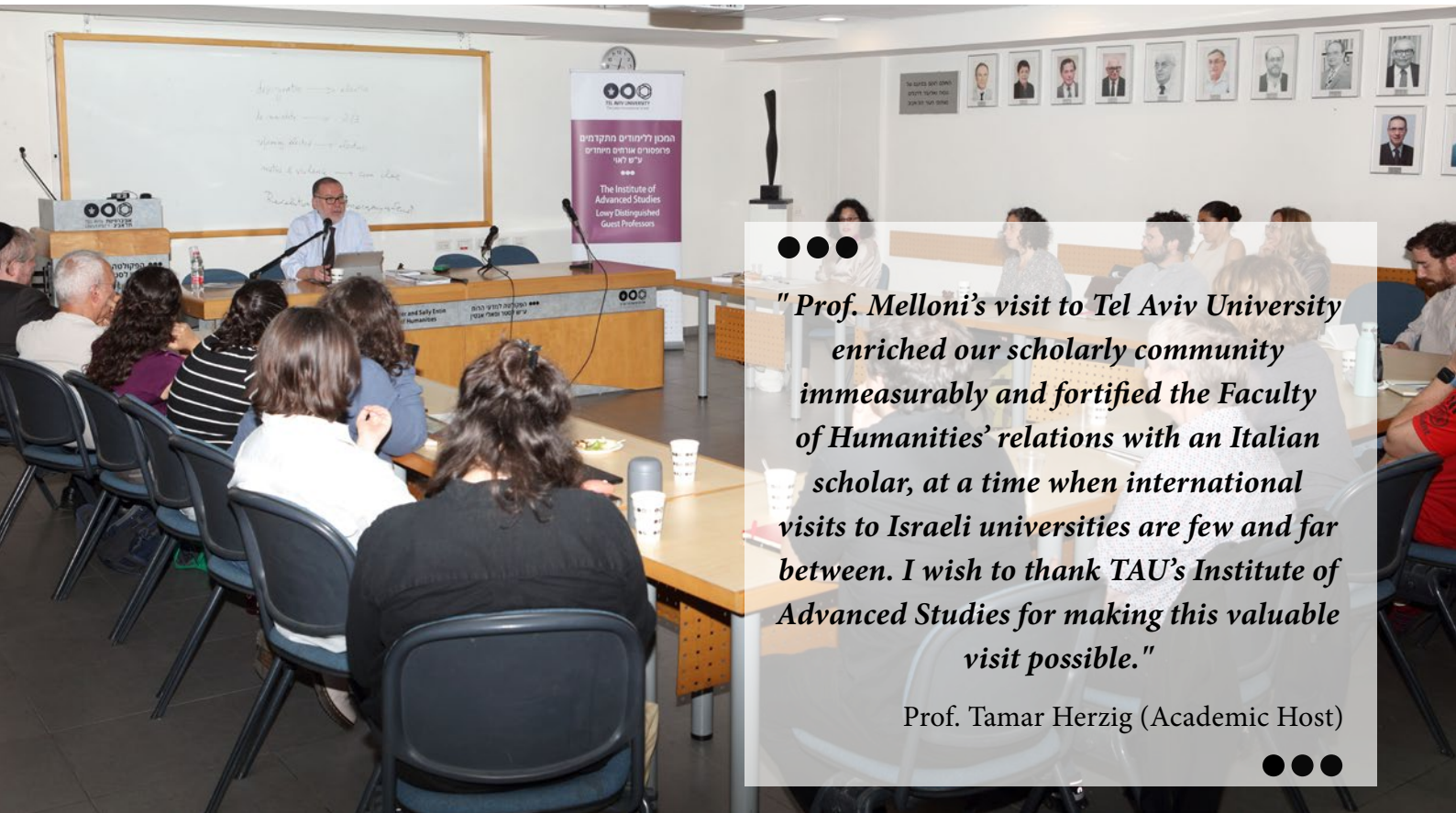
On that evening, Prof. Melloni attended a dinner with Prof. Milette Shamir, TAU's Vice President for Intenational Affairs, Prof. Marek Karliner, Director of TAU's Institute for Advanced Studies, Prof. Tamar Herzig, Director of the Lessing Institute, and two of the other Lowy Distinguished Guest Professors who were visiting TAU at that time.

Prof. Melloni was kind enough to lend his expertise on the subject on the conclave during an interview on May

14th for an episode of the Tel Aviv 360 podcast devoted to the 2025 Conclave and the institution's long history. The interview was conducted by Dr. Naama Maor, a historian of the United States at TAU's Department of History.

On May 14th, Prof. Melloni also delivered a public lecture titled "Sources and their Codes in Jewish-Catholic Relations, 1941-1986," which was followed by a response by Dr. Karma Ben-Johanan from the Hebrew University in Jerusalem, an expert on Catholic-Jewish relations in the twentieth century. The day of May 15th was dedicated to visiting the research labs of ERC project FemSMed and MedPlaceboEffect. At the labs, Prof. Melloni held individual meetings with graduate students and postdoctoral researchers from The Zvi Yavetz School of History and Regional Studies. These meetings proved invaluable for these early-career researchers who were able to share their research interests, further develop their skills, and receive the advice of a distinguished scholar.

Tel Aviv 360 podcast recording (May 14) on the 2025 Conclave and the institution's history, with Dr. Naama Maor).



" Prof. Melloni's visit to Tel Aviv University enriched our scholarly community immeasurably and fortified the Faculty of Humanities' relations with an Italian scholar, at a time when international visits to Israeli universities are few and far between. I wish to thank TAU's Institute of Advanced Studies for making this valuable visit possible."

Prof. Tamar Herzig (Academic Host)

Prof. Helena Florindo

Prof. Helena Florindo, a leading researcher in pharmaceutical sciences, was invited as a Distinguished Guest Professor at Tel Aviv University under the Institute of Advanced Studies and the Lowy International School.

Prof. Florindo graduated in Pharmaceutical Sciences in 2003 (University of Lisbon) and obtained her Ph.D. in Pharmaceutical Technology in 2008 (University of Lisbon), in collaboration with the University of London. She is currently Full Professor at the Faculty of Pharmacy, University of Lisbon, and heads the BioNanoSciences – Drug Delivery & Immunoengineering Research Group at iMed.ULisboa.

Prof. Florindo's research focuses on nanomaterials for cancer and infectious disease therapies, and she serves as an expert for INFARMED and the European Medicines Agency.

During her stay, Prof. Florindo delivered two lectures at the Faculty of Medicine.

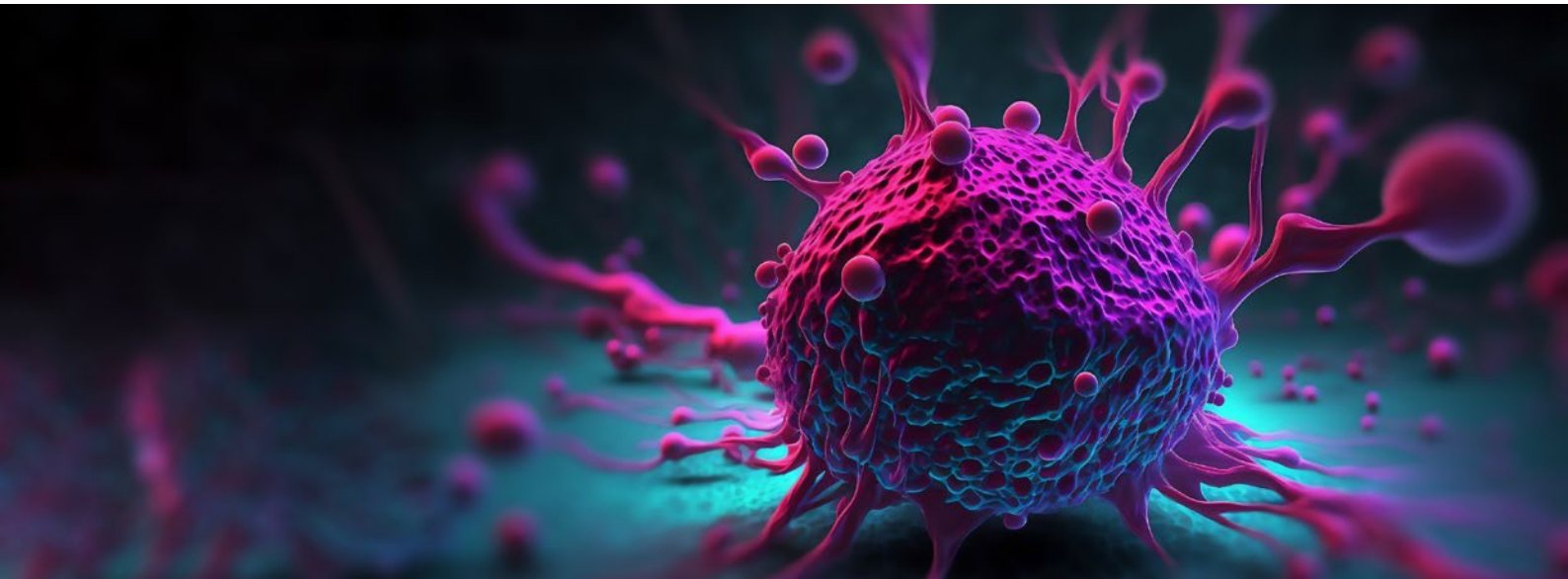
The first lecture was held on May 14, 2025. Prof. Florindo delivered a

compelling scientific lecture titled "Navigating Solid Tumors for Smart Nano-Vaccine Therapies." This talk showcased her cutting-edge research program in nano-immunotherapy, emphasizing the design of multifunctional nanovaccines tailored to overcome the immunosuppressive tumor microenvironment in cancers such as melanoma, colorectal, pancreatic, and breast cancer.

Academic host Prof. Ronit Satchi-Fainaro and IAS guest Prof. Helena Florindo

She highlighted her long-standing collaboration with her academic host Prof. Ronit Satchi-Fainaro at Tel Aviv University, presenting joint advances in antigen-specific immune modulation, dendritic cell targeting, and combinatorial strategies with immune checkpoint inhibitors. The lecture also explored translational approaches to treat brain metastases and the integration of bioinformatics, machine learning, and organ-on-chip technologies to accelerate therapeutic development.

In her second lecture, held on May 19, 2025, Prof. Florindo introduced the University of Lisbon, with a special focus on the Faculty of Pharmacy and its research institute, iMed.ULisboa. She provided an overview of the university's rich academic heritage and its vibrant international collaborations, while spotlighting iMed.ULisboa's multidisciplinary research ecosystem. The presentation covered diverse research lines ranging from drug delivery and immunoengineering to CAR-T cell

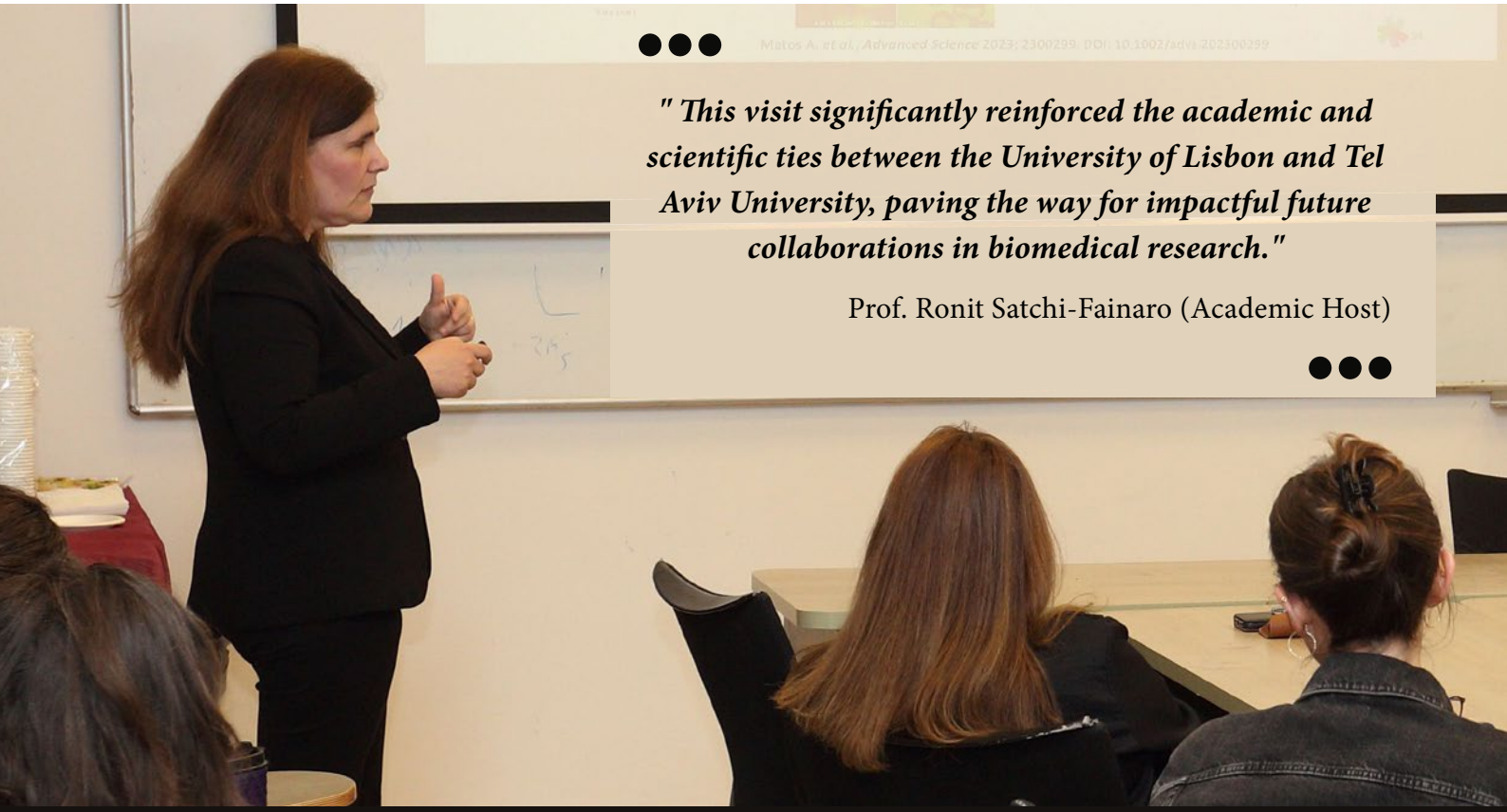


The Faculty of Pharmacy, University of Lisbon, and its research institute, iMed.ULisboa.

therapies, antibody engineering, and 3D printing for personalized medicine. She emphasized the institute's commitment to translational science, its strong ties with the pharmaceutical and healthcare sectors, and its role as a scientific and technological hub. The lecture aimed to foster new collaborations and reinforce existing partnerships, particularly in oncology, infectious diseases, and emerging biomedical technologies.

Prof. Florindo actively engaged with PhD students, postdoctoral fellows, and researchers, discussing ongoing projects, exchanging ideas, and exploring new avenues for joint research. Her visit also included participation in the BioMed Israel conference, a major international event that provided valuable networking and scientific exchange opportunities.

Throughout her stay, Prof. Florindo and Prof. Satchi-Fainaro held several working sessions to review current collaborative projects, draft manuscripts, and plan the submission of new joint research proposals.



" This visit significantly reinforced the academic and scientific ties between the University of Lisbon and Tel Aviv University, paving the way for impactful future collaborations in biomedical research."

Prof. Ronit Satchi-Fainaro (Academic Host)

Prof. Dvira Segal

Prof. Dvira Segal of the University of Toronto visited the Insittue of Advanced Studies as a Lowy Distinguished Guest Professor, betweeen May 12 to June 1, 2025.

Prof. Segal is a Professor in the Departments of Chemistry and Physics, as well as the Director of the Centre for Quantum Information and Quantum Control (CQIQC), at the University of Toronto, Canada.

Prof. Segal has published 150 papers in peer-reviewed journals and has been cited 7000 times. Her research focuses on developing theoretical methods for studying quantum dynamics in complex systems, addressing fundamental and practical problems in nanosystems and quantum-based technologies. She is also a leader in stochastic thermodynamics, deriving performance bounds and cost-precision tradeoff relations relevant to stochastic quantum and classical thermal machines.

During her stay, Prof. Segal gave a Physical Chemistry seminar on May 15, 2025, entitled "An Analytical Approach to Strongly Coupled Open Quantum Systems," with many participants from the Chemistry, Physics, and Engineering departments.

The lecture presented an analytical approach to understanding strongly coupled open quantum systems using a non-perturbative Effective Hamiltonian method. She discussed its application in fields such as quantum optics, materials design, and quantum information, illustrating how strong system-environment interactions affect quantum dynamics and thermodynamics through a range of examples.

Prof. Segal also gave a tutorial lecture on May 19, 2025, on open quantum systems, entitled "Open Quantum Systems: From Chemical Dynamics to Quantum Information." Many students from the Chemistry and Physics departments and several faculty members attended.

Prof. Segal also had a detailed work meeting with the groups of Professor Guy Cohen, Chemistry, Professor Moshe Goldstein, Physics, and Dr. Barak Hirshberg's group, which will potentially lead to future collaboration.

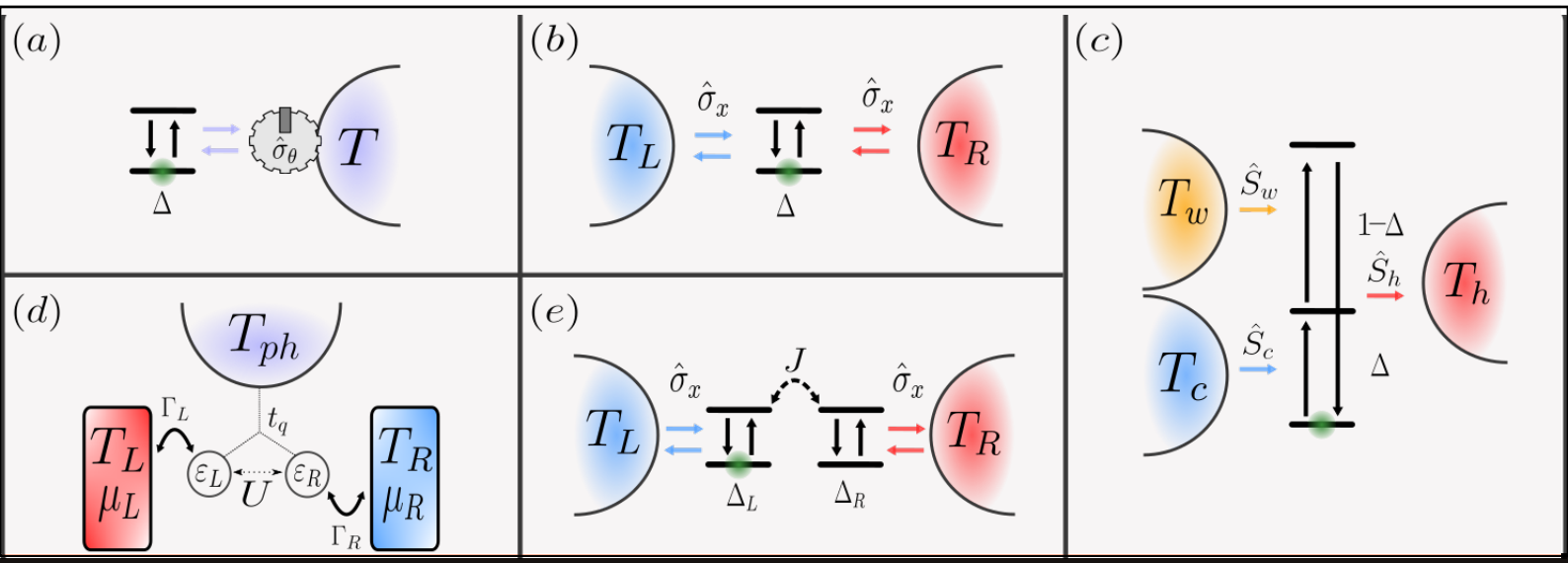
Academic host Dr. Barak Hirshberg and IAS Guest Prof. Dvira Segal

seminars, discussions with faculty and students, and opportunities to explore joint research initiatives, thereby strengthening scientific ties and promoting the advancement of chemical physics research throughout Israel.

Her visit also made a significant impact, contributing broadly to the Israeli theoretical Chemical Physics community. During her stay, Prof. Segal actively engaged with several leading academic institutions across the country, fostering collaboration and knowledge exchange. She visited the Technion on May 20th, the Hebrew University on May 27th, and Bar Ilan University on May 28th. These visits included

" I would like to thank you for supporting her visit, and I am indebted to the staff of the IAS who ensured her visit ran smoothly. With their help, we can highlight the quality of Israeli science and our professional hospitality."

Dr. Barak Hirshberg (Academic Host)



IAS Outstanding Junior Fellows

The IAS Outstanding Junior Fellows framework is seeking to promote and support visits of a small number of truly exceptional young scientists in all academic disciplines, who have already made very substantial top-level contributions to research in their respective fields, clearly indicating that they are on their way to becoming world academic leaders.

Candidates are selected by the IAS board on a competitive basis, taking into account their scientific contributions and benefit to research at TAU. Priority is given to those areas in which collaboration between an IAS visitor and an existing research group at the University will be deemed most valuable.

IAS Outstanding Junior Fellows can be invited for a period between two weeks and three months. The time of their visit should be coordinated with the visitor's Faculty host(s) and the IAS office.

IAS Outstanding Junior Fellows are free to carry out their own research at the University, to collaborate with other researchers in joint work, or to participate in any way they see fit in the life of the University. It is customary for IAS visitors to give several lectures in their field of expertise. Such lectures have usually been the highlights of the visits and have been attended by academics from all over Israel.

2024-2025 IAS OUTSTANDING JUNIOR FELLOWS

Professor Giulia Giordano
Department of Industrial Engineering, University of Trento, Italy

Professor Rachel Greenfeld
Department of Mathematics, Northwestern University, USA

Prof. Giulia Giordano

Prof. Giulia Giordano from the University of Trento, Italy, visited the School of Electrical and Computer Engineering as an Outstanding Junior Fellow, between January 13 to February 3, 2025, under the auspices of The Institute of Advanced Studies, Tel Aviv University.

Prof. Giordano is a relatively young researcher, but she is undoubtedly a rising star. She serves as an Associate Professor in the Department of Industrial Engineering at the University of Trento, Italy. She has already received numerous scientific awards, among them, the 2021 SIAM Activity Group on Control and Systems Theory Prize and the 2017 NAHS Best Paper Prize. She was also listed in the "single year" World's Top two percent Scientists ranking by Stanford University (2021-2022-2023).

Prof. Giordano is a Member of the IEEE (Institute of Electrical and Electronics Engineers) and of the CSS (Control Systems Society). She serves as an Associate Editor for the IEEE Control Systems Letters and for Automatica. Her main research interests include the analysis and the control of dynamical networks, with applications especially to biology and epidemiology. During her visit, Prof Giordano gave

two lectures. The first lecture was held on January 20, 2025, and was titled: "Robustness and Resilience of Dynamical Networks in Nature". She explored how natural systems across biology, ecology, and epidemiology maintain stability despite significant internal and external disturbances. Focusing on the role of network structure, she examined how certain behaviors emerge independently of specific parameters. The lecture also addressed the limitations of purely structural methods and introduced probabilistic approaches and new definitions of resilience applicable to biological models.

The second lecture was held on January 28, 2025, as part of the School of Electrical Engineering's colloquium, and was titled: "A Systems-And-Control Viewpoint on Biology and Epidemiology". In her lectures, she discussed methods for analyzing biochemical reaction networks without relying on specific parameter values, enabling insights into system stability, input-output behavior, and structural model comparisons. The talk also addressed applications in synthetic biology, where such structural tools aid in designing robust biological circuits. In the second part of the lecture, she focused on epidemiological models and presented control strategies

Invitation to the lectures of Prof. Giulia Giordano

IAS Outstanding Junior Fellow Prof. Giulia Giordano and her academic host Prof. Michael Margaliot

for managing disease spread under uncertainty.

These talks have attracted an interdisciplinary audience from the faculties of exact sciences, biology, ecology and more.

Prof. Giordano also met with faculty members from computer science, biology, and engineering to discuss possible avenues for joint research.

Prof. Giordano visited here with her post-doc student, Dr Rami Katz, and the three of us together completed and submitted a joint research paper.

" All in all, I believe that this was a very fruitful visit, and I am very grateful to the generous donors of The Institute of Advanced Studies for making this visit possible."

Prof. Michael Margaliot (Academic Host)

Prof. Rachel Greenfeld

Prof. Rachel Greenfeld from the Department of Mathematics at Northwestern University, visited the Institute for Advanced Studies (IAS) from May 6 to May 30, 2025, as an IAS Outstanding Junior Fellow.

Prof. Greenfeld is an outstanding young mathematician specializing in Fourier analysis, additive combinatorics, and discrete geometry. In two of her recent discoveries — her collaboration with Tao on the periodic tiling conjecture and her work with Iliopoulou and Peluse on integer distance sets — she made major breakthroughs on central open problems in mathematics, as reported in illuminating articles in Quanta Magazine. Her research is interdisciplinary, bridging gaps between various mathematical fields, working at the interface of harmonic analysis, additive combinatorics, discrete geometry, and related areas.

During her visit, Prof. Greenfeld delivered a two-part lecture series titled: "Translational Tilings Structured

or Wild?", held on Tuesdays, May 6 and May 13, 2025.

These lectures offered a stimulating overview of recent progress in the study of translational tilings of Euclidean space. The talks were accessible, insightful, and well-attended, engaging experts, graduate students, and advanced undergrads alike.

In addition, Prof. Greenfeld gave a talk in the framework of the international conference "Number Theory, Quantum Chaos and their Interfaces", held at Tel Aviv University. Her lecture: "Integer Distance Sets", was delivered on Monday, May 19, 2025 and was joint with the departmental colloquium.

This presentation drew on her original work at the interface of additive combinatorics, discrete geometry, and number theory.

Beyond her formal presentations, Prof. Greenfeld took an active part in the academic life of the school of mathematical sciences and the conference. Her visit contributed significantly to the intellectual atmosphere and fostered new connections between local and international researchers.

Prof. Rachel Greenfeld and her academic host Prof. Lior Bary-Soroker

" Finally, I would like to express my appreciation to the IAS for its generous hospitality and support of early-career mathematicians through the Outstanding Junior Fellow program. The conducive and welcoming environment offered by the IAS plays a vital role in nurturing emerging leaders in the mathematical sciences, and Prof. Greenfeld's visit is a shining example of its success."

Prof. Lior Bary-Soroker (Academic Host)

IAS Fulbright-TAU Senior Scholars

The IAS Fulbright–TAU Senior Scholars Fellowship is a prestigious joint initiative between Fulbright and Tel Aviv University, designed to support senior American faculty members who wish to spend a semester conducting research and/or teaching at TAU.

Applications for the fellowship are submitted directly through Fulbright USA. Selected candidates are chosen by the Academic Board of the IAS at Tel Aviv University from a shortlist prepared by United States–Israel Educational Foundation (USIEF).

In addition to its academic excellence, the program aims to foster lasting connections between the United States and Israel by promoting cross-cultural dialogue, scholarly exchange, and international collaboration.

The fellowship is open to senior scholars from all academic disciplines and is awarded for a four-month residency at Tel Aviv University. Fellows are encouraged not only to pursue their primary academic projects but also to contribute to the broader university community by delivering public lectures, mentoring students, and engaging with faculty and peers.

The Institute of Advanced Studies (IAS) serves as the official host and primary point of contact for the fellow during their stay. The hosting academic unit within TAU is responsible for providing office and/or laboratory space, as appropriate to the scholar's field of expertise.

2023-2024 Fulbright-TAU Senior Scholar

Professor Diana Berman

Department of Materials Science and Engineering, University of North Texas, USA

Professor Siegfried Glenzer

Department of Energy Sciences; Director, SLAC National Accelerator Laboratory, Stanford, USA

2024-2025 Fulbright-TAU Senior Scholar

Professor Dan Edidin

Department of Mathematics, University of Missouri, USA

Prof. Diana Berman

Academic host Prof. Michael Urbakh, Fulbright-TAU Senior Scholar Prof. Diana Berman and Prof. Oded Hod

Prof. Diana Berman visited Tel Aviv University during Spring 2024 as an IAS Fulbright-TAU Senior Scholar, where she established and worked in collaboration with Profs. Michael Urbakh and Oded Hod.

Prof. Berman is an Associate Professor in the Materials Science and Engineering Department at the University of North Texas, USA. Prof. Berman's research interests are in synthesis and characterization of nanostructures, surfaces, and interfaces of ceramic and carbon-based materials for precise control and improvement of their tribological properties and functionality. She has published more than 75 papers in peer-reviewed journals and two book chapters. She also holds 10 patents (both US and International).

Three specific outcomes were accomplished during her visit:

1. Initiating a research collaboration with world-known scientists working in the area of tribology and advancing the scientific knowledge in computational surface science. During the visit, Prof. Berman participated in regular meetings and discussions focusing on an overview of existing challenges in the area of tribology, friction, and wear of materials. These discussions specifically helped to coordinate the theoretical and experimental advances

in understanding the phenomenon of structural superlubricity in 2D materials. As a result, Prof. Berman, Dr. Urbakh, and Dr. Hod wrote a joint book chapter and are currently working on a joint review article.

2. Expanding the scientific knowledge toolbox by gaining training in the area of modeling and computer simulations. During the visit, Prof. Berman learned about the theoretical and computational models used for the analysis of the friction behavior of layered materials developed by TAU professors. Specifically, she worked on running and analyzing single-layer, two-layer, and three-layer models describing interactions in homogeneous and heterogeneous graphene/hexagonal-boron-nitride systems. This experience will enhance her experimental skills in surface science with theoretical calculations expertise and will help her to provide better supervision to the students working under her guidance. The preliminary results gained during the visit will also be used as a basis for future joint projects and publications.

3. Establishing connections with universities and scientists in Israel. During the visit, Prof. Berman presented two research seminars, in TAU and Technion - Israel Institute of Technology and met with professors in Chemistry, Physics, Materials Science, and Chemical Engineering. This will help to advertise materials science research in the US and establish new collaboration opportunities and student exchange connections.

Prof. Siegfried Glenzer

Being a 2024 IAS Fulbright-TAU Senior Scholar, Prof. Glenzer of SLAC visited Israel on March, and again April-July 2024. In parallel, two of his Ph.D. students arrived at TAU to conduct experiments at TAU's high intensity laser laboratory within a joint program with Prof. Ishay Pomerantz's group, funded by the US-Israel Binational Science Foundation.

Prof. Genzer is a professor of Photon Science at SLAC National Accelerator Laboratory, Menlo Park, California, USA and for Mechanical Engineering (by courtesy) at Stanford University. He also serves as the director of the High Energy Density Science Division at SLAC National Accelerator Laboratory.

Prof. Glenzer authored and co-authored more than 500 journal publications and published the textbook "Plasma Scattering of Electromagnetic Radiation" by D. H. Froula, S. H. Glenzer, N. C. Luhamn, Jr., J. Sheffield, 2nd edition (Elsevier, 2010).

At SLAC, Prof. Glenzer built a new discovery-science class program exploring matter in extreme conditions using high-power lasers and the world-class Linac Coherent Light Source X-ray beam. In this role, he has formed

a world-leading science program and has contributed to the growth of the plasma physics community at SLAC and Stanford University. The division produced a significant number of high-impact results that are important for the field of plasma science documented in over 150 peer-reviewed publications and more than 45 awards and fellowships. In 2021, Prof. Glenzer led the science case for the Matter in Extreme Upgrade project that has passed CD-1, and which is expected to produce unique capabilities to advance the field.

During his visit, Prof. Glenzer gave the keynote presentation on April 11, 2024, at the Israel Physical Society annual meeting, on the achievement of the US National Ignition Facility in demonstrating a burning nuclear fusion plasma.

Academic host Dr. Ishay Pomerantz and Fulbright-TAU Senior Scholar Prof. Siegfried Glenzer

At TAU, Prof. Glenzer gave three seminars for different communities on different topics. To the condensed matter department on June 10, 2024, he presented on material investigations using ultrafast electron diffraction. To the center of light-matter interaction community, on June 20, 2024, he presented his use of the X-ray free electron facility at SLAC. To the particle physics department, on June 26, 2024, he presented the US roadmap to

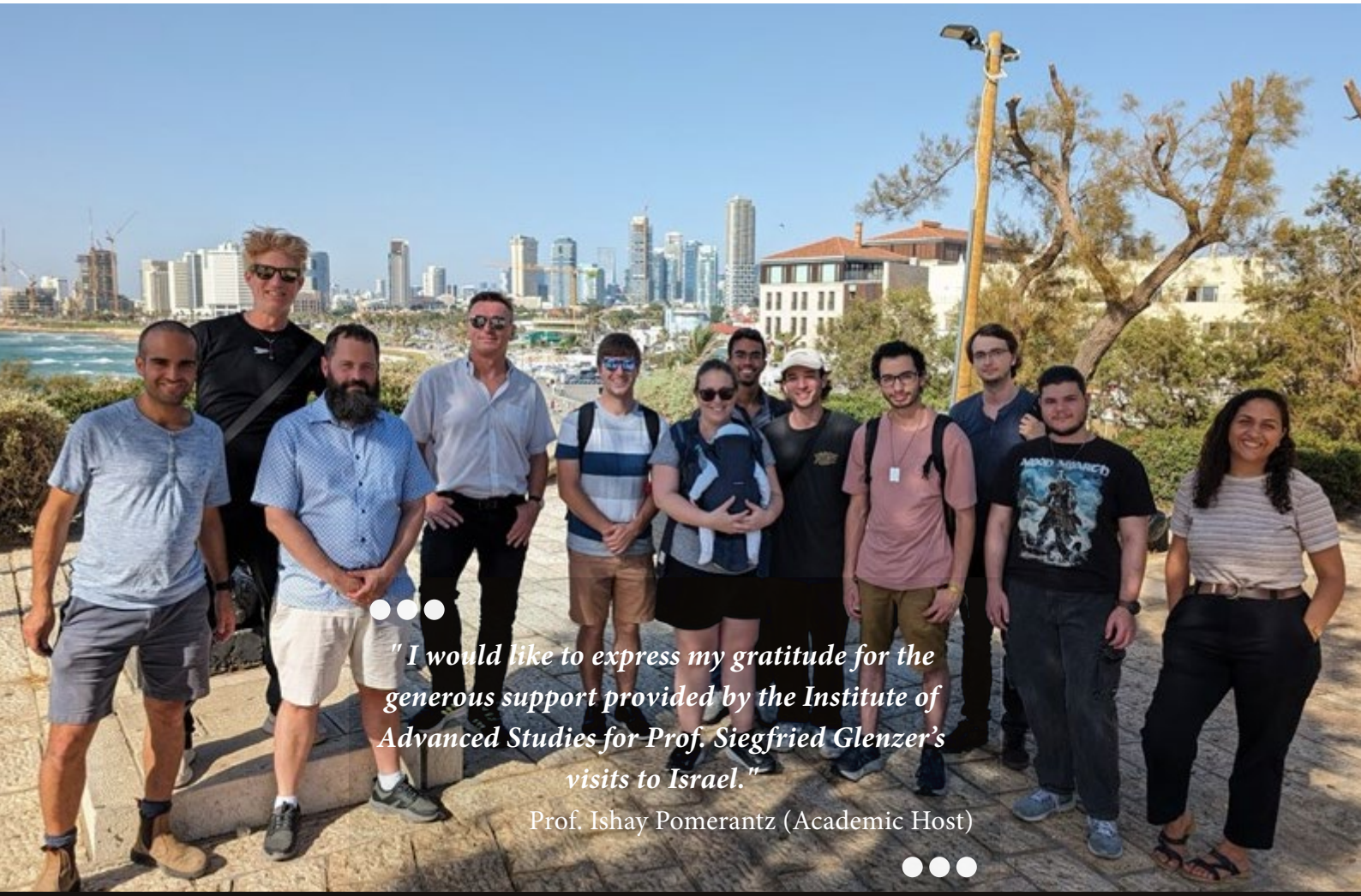
achieving energy production using a nuclear fusion based generator.

The joint experiments conducted by Prof. Siegfried's and Prof. Ishay Pomerantz's groups were in the field of laser acceleration of protons. Prof. Siegfried's students brought with them a unique target system they developed, which forms an ultrathin layer of water on which Prof. Ishay Pomerantz's group focused their high intensity laser pulses.

During their five weeks stay, they have managed together to accelerate protons at a rate of 10-times per second, highly surpassing any published world record. As a result of this success, Prof. Siegfried's group decided to leave this target system at TAU to be a permanent research setup, and to continue returning to perform experiments here.

Joint experiments between Prof. Siegfried's and Prof. Ishay Pomerantz's groups

Research students of Prof. Siegfried and Prof. Ishay Pomerantz on a joint tour of Jaffa



" I would like to express my gratitude for the generous support provided by the Institute of Advanced Studies for Prof. Siegfried Glenzer's visits to Israel."

Prof. Ishay Pomerantz (Academic Host)

Prof. Dan Edidin

Professor Dan Edidin visited the School of Electrical and Computer Engineering from February to June 2025, with a generous support from the IAS-Fulbright TAU Senior Scholar Program.

Prof. Edidin is a Professor of Mathematics at the University of Missouri-Columbia, USA, who studies algebraic geometry and its applications.

Prof. Edidin has 59 published or accepted articles in pure and applied mathematics and 3,132 citations listed in Google Scholar. Two papers, Equivariant intersection theory (pure mathematics) and On signal reconstruction without phase (applied mathematics) have over 600 citations each.

Prof. Edidin's training is in algebraic geometry, a branch of pure mathematics which studies the solution sets of systems of multivariate polynomial equations. His early work was on problems that arise when a symmetry group acts on the system of equations. A notable achievement in pure mathematics was the development (with William Graham) of equivariant intersection theory – a now widely used tool in the field.

Prof. Edidin is also recognized for his contributions in the field of phase retrieval, which is the problem of recovering a signal from the magnitudes of a set of linear

measurements such as the Fourier transform. His recent work has focused on using methods from algebraic geometry and representation theory to study problems at the foundations of two important experimental techniques in structural biology – X-ray crystallography and cryo electron-microscopy.

The visit of Prof. Edidin was a great success. He actively engaged with Prof. Tamir Bendory's research group, and his presence significantly enriched their ongoing work. Together, they made substantial progress on several research projects, resulting in the submission of a paper to a top-tier journal in applied mathematics. In addition, two more projects are in advanced stages and are expected to be ready for submission within a few weeks. Building on the fruitful discussions during the visit, they also plan to submit a new joint BSF grant proposal this summer.

In addition to collaborating with Prof. Tamir Bendory's research group, Prof. Edidin established strong research ties with several faculty members across departments, including Prof. Itzhak Tamo (ECE), Prof. Yoel Shkolnisky (Applied Mathematics), Prof. Ram Zamir (ECE), Prof. Nir Sharon (Applied Mathematics), and Dr. Amit Moscovich (Statistics).

Opening statements of Prof. Tamir Bendory, before the lecture of IAS Fulbright-TAU Senior Scholar Prof. Dan Edidin

As part of his visit to Tel Aviv University, Prof. Edidin delivered four excellent talks. Two of them introduced the fundamentals of group and representation theory to an audience of engineers, providing accessible and engaging insights into these mathematical foundations. The two-part introductory course covered fundamental concepts in group theory and representation theory, with a focus on orthogonal and unitary groups. It explored both theoretical foundations and practical applications in science,

Academic host Prof. Tamir Bendory and Fulbright-TAU Senior Scholar Prof. Dan Edidiin

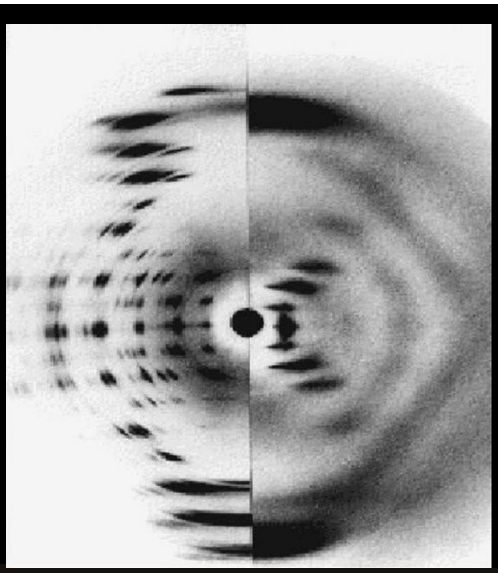
engineering, deep learning, and cryo-electron microscopy.

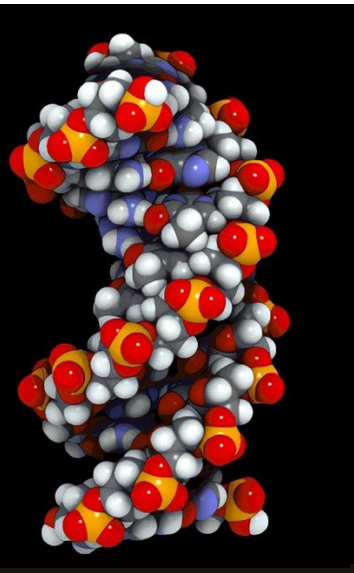
He also gave two research seminars. One in the Applied Mathematics seminar series, on March 26, 2025, titled "Stability Of Second Moment Recovery". The seminar explored mathematical conditions under which the second moment of a signal, represented through Gram matrices, is stable and injective on certain semi-algebraic sets. The talk also discussed bilipschitz properties of the square root of the second moment and its applications in phase retrieval and cryo-electron microscopy.

The second in the Electrical Engineering seminar on april 28, 2025, titled "The Generalized Phase Retrieval Problem". The seminar introduced the generalized phase retrieval problem, which involves recovering matrices from their Gram matrices using tools from representation theory. Applications include X-ray crystallography and cryo-electron microscopy.

Both seminars were well received and generated strong interest among attendees. Overall, Professor Dan Edidin's four-month visit was a resounding success. It resulted in new scientific papers, the development of fresh research ideas, and the initiation of promising interdisciplinary collaborations. Both Tel Aviv University and the broader Israeli scientific community greatly benefited from his visit.

X-ray-diffraction-pattern-and-DNA-molecule





The Distinguished Lectures Series

The Distinguished Lectures Series was established to promote academic excellence at Tel Aviv University by inviting internationally renowned scholars to engage with the University's academic community. The program focuses on six key academic fields: Physics, Geophysics, Chemistry, Mathematics, Pure Mathematics, and Medicine.

Distinguished Lecturers are selected based on their international prominence and contributions to innovative at essential areas of scientific and academic development. They are invited for short-term visits, typically lasting one to two weeks, and are expected to deliver several lectures during their stay, including seminars and public talks that are often widely attended.

In the field of Physics, the Distinguished Lectures Series includes four named memorial lectures, which serve both as academic highlights and tributes to some of Israel's most influential scientists. These are the Yossef Dothan Memorial Lecture, the John Bahcall Lecture in Astrophysics, the Yuval Ne'eman Memorial Lecture and the Judah M. Eisenberg Memorial Lecture.

Lectures in the series are selected by the coordinators of each of the six scientific fields, ensuring that each visiting lecturer brings significant added value to their field while strengthening Tel Aviv University's international academic collaborations.

2023-2024 Distinguished Guest Lecturers

Professor Konstantin Khanin

Distinguished Lecturer in Pure Mathematics • Department of Mathematics, University of Toronto, Canada.

Professor David Kosower

Guest Lecturer at the Emilio Segre Distinguished Lectures in Physics • *Delived the annual Yossef Dothan Memorial Lecture* • Senior Scientist, Institut de Physique Théorique CEA-Saclay, France.

Professor Julien Fuchs

Guest Lecturer at the Emilio Segre Distinguished Lectures in Physics • *Delivered the annual Judah M. Eisenberg Memorial Lecture* • CNRS – Ecole Polytechnique, France.

2024-2025 Distinguished Guest Lecturers

Professor Reinhard Genzel

Nobel Prize Laureate in Physics • *Guest Lecturer at the Emilio Segre Distinguished Lectures in Physics* • *Delivered the annual John Bahcall Astrophysics Lecture* • Director at the Max-Planck Institute for Extraterrestrial Physics, Garching, Germany.

Dr. Vincenzo Vagnoni

Lectures in Physics • *Delivered the annual Judah M. Eisenberg Memorial Lecture* • Spokesperson, LHCb experiment, CERN, Geneva, Switzerland; Research Director, INFN, Italy.

Prof. Konstantin Khanin

The 2024 Distinguished Lecturer in Pure Mathematics has been delivered by Professor Konstantin Khanin, a world renowned expert in dynamical systems and mathematical physics working at the University of Toronto.

He delivered a colloqiuim on May 20, 2025, titled "Kpz Universality And Statistics Of Stochastic Flows" . provided a fascinating overview of recent developments in the Kardar-Parisi-Zhang problem, an active research area lying on the crossroads of probability theory, statistical mechanics, mathematical physics, random matrices, and random geometry. The talk introduced the core ideas of KPZ universality through the lens of random geometry, focusing on the statistical behavior of geodesics in random environments and their universal limiting properties. In the second part, a geometric perspective on the KPZ problem was presented, offering broader insights into universal statistical behavior—accessible even to those without prior background in the field.

He also delivered a lecture in the framework of the Geometry and Dynamics seminar "On Typical Rotation Numbers For Families

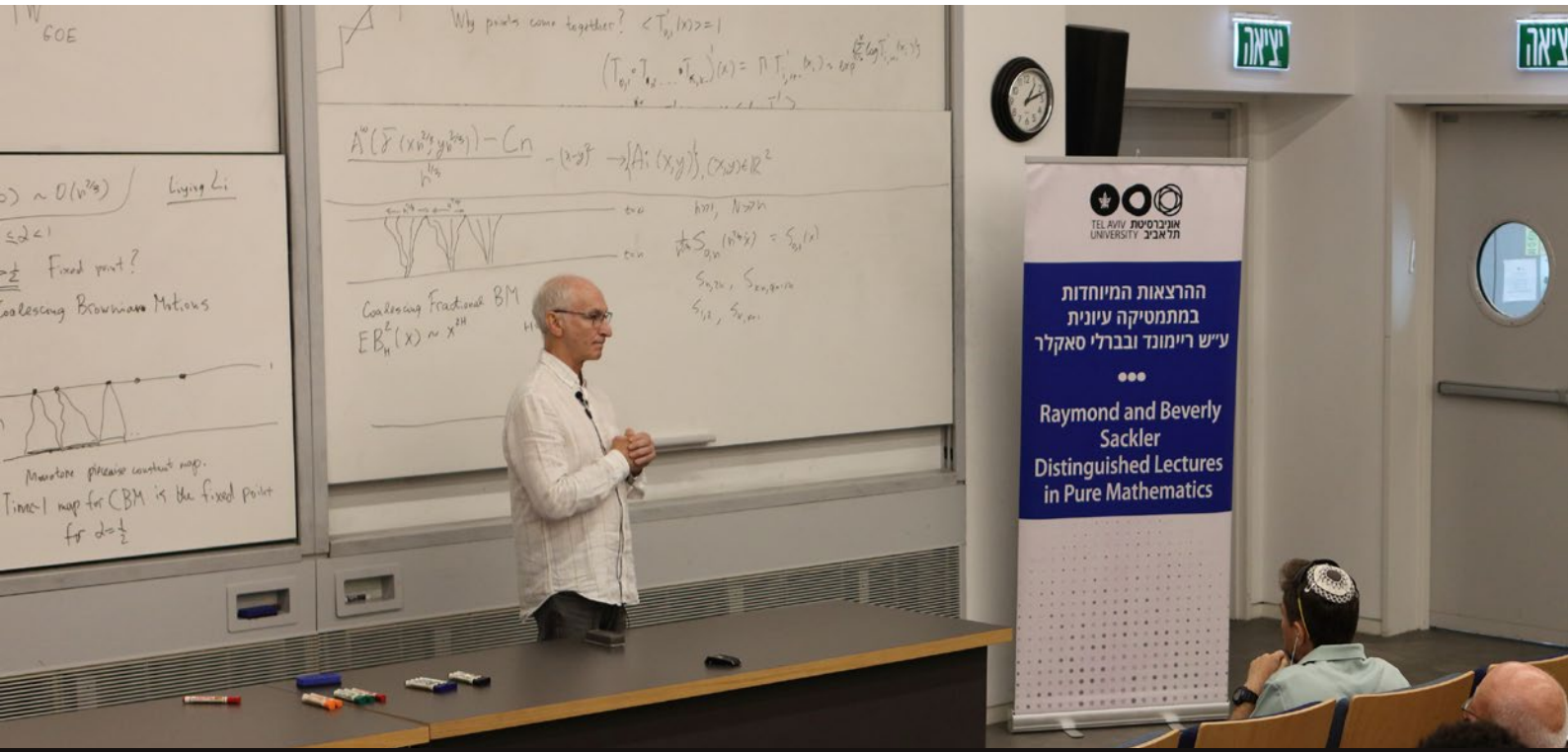
Of Circle Maps With Singularities", introducing the listeners into an important circle of problems at the interface of classical dynamical systems and the renormalization group of mathematical physics.

Prof. Khanin is one of the most prominent alumni of Sinai's famous scientific school in dynamics and mathematical physics. He was an invited speaker at the European Congress of Mathematics in Barcelona in 2000. He was a 2013 Simons Foundation Fellow. Prof. Khanin held the Jean-Morlet Chair at the Centre International de Rencontres Math´ematiques in 2017, and he was an Invited Speaker at the International Congress of Mathematicians in 2018 in Rio de Janeiro. In 2021, he was awarded the Carl Friedrich von Siemens Research Award of the Alexander von Humboldt Foundation.

Prof. Konstantin Khanin and his academic host Prof. Leonid Polterovich

Prof. Khanin's research interests include dynamical systems, ergodic theory, probability theory, mathematical physics, statistical mechanics and turbulence theory.

The visit of a mathematical physicist of Prof. Khanin's caliber, made possible by the support of the IAS, was a significant event for the School of Mathematical Sciences. Several faculty members seized this opportunity to engage in scientific discussions with Prof. Khanin.



Prof. David Kossover

Prof. David Kosower, Senior Scientist at the Institut de Physique Théorique at CEA-Saclay, France, visited TAU between June 7-16, 2024, as a Guest Lecturer at the Emilio Segre Distinguished Lectures in Physics.

Prof. Kosower is a particle theorist whose main interests are in scattering amplitudes, their applications to QCD and collider physics and their applications to gravitational waves. He was one of the first recipients of an Advanced Grant from the European Research Council, and currently holds his second Advanced Grant. In 2014, he shared the J. J. Sakurai Prize for theoretical particle physics with Zvi Bern and Lance Dixon.

Prof. Kosower was a participant in extended workshops at the Kavli ITP in Santa Barbara, California, USA and the Galileo Galilei Institute in Florence, Italy.

During his visit, Prof. Kosower delivered the annual Yossef Dothan Memorial Lecture. In his lecture, he presented the new and flourishing approaches based on quantum scattering amplitudes, as well as some examples of new `classical from quantum' approaches.

At the event, introductory remarks were delivered by Prof. Marek Karliner, IAS Director and Professor at the School of Physics and Astronomy.

During the ceremony, the "Academic Achievement" Scholarship, supported by the Dothan Fund in memory of Professor Yossef Dothan, was awarded to Mr. Grisha Zeltyn, a Ph.D. student.

"Academic Achievement" Scholarship was awarded to Mr. Grisha Zeltyn, a Ph.D. student.

In addition to the lecture, Prof. Kosower had fruitful scientific discussions.

Prof. Kosower mentioned that his visit at Tel Aviv University was prolific. He expressed his gratitude to the Institute for Advanced Studies for its hospitality.

Academic guest Prof. Tomer Volansky, Guest Lecturer Prof. David Kosower and IAS Director Prof. Marek Karliner

The visit provided a unique opportunity for the TAU scientific community to interact closely with one of the world's leading theorists in particle physics. Through his lecture and informal exchanges, Prof. Kosower not only shared cutting-edge developments in the field, but also inspired students and faculty alike. His presence exemplifies the Institute's mission to bring outstanding scholars to campus and foster meaningful academic exchange across disciplines.

Prof. Julien Fuchs

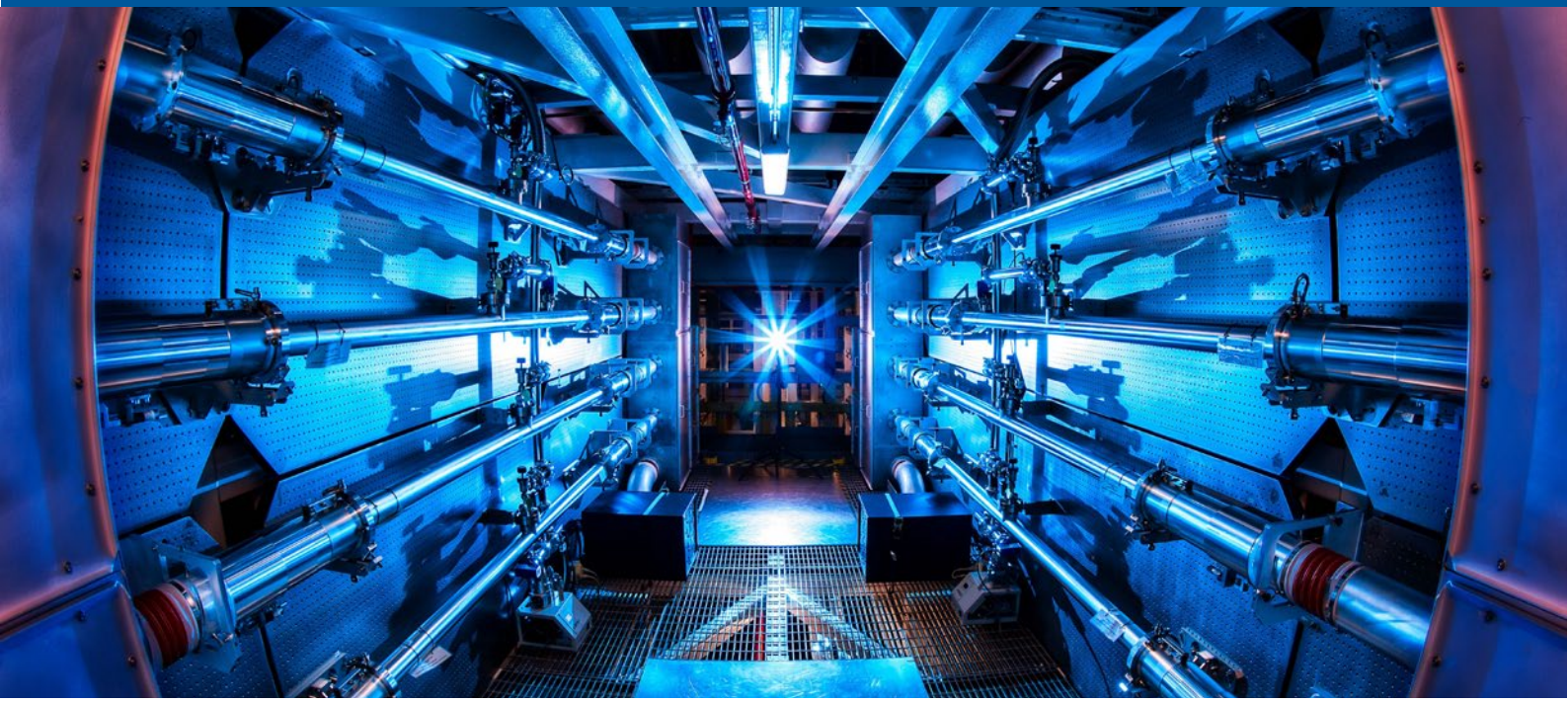
Dr. Ishay Pomerantz and Guest Lecturer Prof. Julien Fuchs (CNRS, France)

Prof. Fuchs visited Israel between June 16 to June 25, 2024, as a Guest Lecturer at the Emilio Segre Distinguished Lectures in Physics, and during his visit delivered the annual Judah M. Eisenberg Memorial Lecture,

Prof. Fuchs is a senior researcher at the LULI Laboratory of the CNRS, Ecole Polytechnique, France. Prof. Fuchs' research interests include high-power lasers interaction with matter, inertial-confinement-fusion physics, and physics of high-energy laser-driven ion sources and applications.

In the early 2000, Prof. Fuchs has worked implementing (for the first time in France) adaptive optics on a high-power laser, following which a student created a startup (PHASICS) that has developed into a successful company with now twenty employees. More recently, he participated in the creation of the company "Light Stream Labs", which aims to promote expertise in the realization of laser-matter diagnostic and targets systems.

On June 16, 2024, he gave the Judah M. Eisenberg annual memorial colloquium lecture titled: "Synergistic Progress In Plasmas: From Fusion To Astrophysics ".



In his talk, he presented recent breakthroughs in laser-driven plasma research. He highlighted how developments in areas such as compact particle accelerators, inertial fusion, and laboratory astrophysics are interconnected and mutually reinforcing. The lecture covered advancements in ultra-bright neutron beam production, fusion enhancement through magnetization, and experimental insights into cosmic phenomena such as ion acceleration, collimated outflows, and magnetic reconnection-underscoring the interdisciplinary impact of plasma physics.

The Professor Judah M. Eisenberg Memorial Lecture featured introductory remarks by Prof. Benjamin Svetitsky of the School of Physics and Astronomy. During the event, the Judah Eisenberg Award for Academic Achievement was presented to Ms. Michal Elkind, a Ph.D. student, in recognition of her outstanding academic accomplishments.

During his visit, Prof. Fuchs met for discussions with TAU's rector, Prof. Shteif, and with the head of the School of Physics and Astronomy, Prof. Dagan. He also met for private discussion with Profs. Levinson, Abramovitch, Nakar, Oz, Suchowski and Volansky from the School of Physics and Astronomy.

Judah Eisenberg Award for Academic Achievement was presented to Ms. Michal Elkind, a Ph.D. student

Prof. Fuchs met with graduate students and undergraduate research assistants and discussed their research projects at Dr Pomerantz's high intensity laser laboratory. During the visit, he finalized the details of having our student Yoav Heller start a Ph.D. under his supervision in a dedicated graduate program on Nuclear Fusion research conducted in partnership with Sorbonne University in Paris. Yoav will start the program this coming September.

" I would like to express my gratitude for the generous support provided by the Institute of Advanced Studies for Prof. Julien Fuchs's visits to Israel in June 2024. "

Dr. Ishay Pomerantz (Academic Host)

IAS Director Prof. Marek Karliner, IAS Guest Prof. Dr. Reinhard Genzel and his academic host Prof. Amiel Sternberg

Prof. Dr. Reinhard Genzel

Prof. Dr. Reinhard Genzel, visited Tel Aviv University in January, as a Guest Lecturer at the Emilio Segre Distinguished Lectures in Physics as well.

Prof. Dr. Genzel delivered on January 12, 2025, the Yuval Ne'eman memorial lecture as the Physics Colloquium speaker.

In his talk, titled "Black Holes in Galaxies: Experimental Evidence and Cosmic Evolution," Prof. Dr. Genzel described his Nobel Prize winning research and discovery of the supermassive black hole in the center of our Milky Way galaxy. He showcased cutting-edge findings from high-resolution imaging, interferometry, and gravitational wave measurements that confirm the existence of black holes and shed light on their evolution alongside galaxies. He also addressed the surprising discovery of massive black holes in the early universe by JWST.

The event included introductory remarks by Prof. Amiel Sternberg (School of Physics and Astronomy)

and the presentation of the Yuval Ne'eman Academic Achievement Scholarship to Mr. Dor Shohat, a Ph.D. student..

During his visit to Tel Aviv University, Prof. Dr. Reinhard Genzel engaged with senior administrators, faculty members, postdoctoral researchers, and students, fostering meaningful academic dialogue and exchange. His visit strengthened ties between TAU and the global astrophysics community, and offered a unique opportunity for young researchers to learn from one of the world's leading scientists.

Presentation of the Yuval Ne'eman Academic Achievement Scholarship to Mr. Dor Shohat, Ph.D. student.

Dr. Vincenzo Vagnoni

Dr. Vincenzo Vagnoni, Spokesperson of the LHCb experiment, CERN, Geneva, Switzerland and Research Director at the National Institute for Nuclear Physics (INFN), Italy, visited Tel Aviv University from May 16 to 18, 2025, as a Guest Lecturer in the Emilio Segre Distinguished Lectures in Physics.

Dr. Vagnoni's main research activities focus on flavour physics in both the beauty and charm domains, high-throughput computing and particle detector development. He has co-authored over 900 publications in international journals. Dr. Vagnoni joined the LHCb collaboration at CERN during its construction phase in 2001. Since then, he has served as convenor of several physics working groups, coordinated physics planning and was the LHCb Physics Coordinator. Dr. Vagnoni has also played key roles within INFN, including coordination of LHCb computing activities, national

Prof. Vincenzo Vagnoni and his academic host IAS Director Prof. Marek Karliner.

responsibility for the LHCb experiment, and membership in several scientific and technical committees related to computing and research infrastructure.

During his visit, Dr. Vagnoni delivered on May 18, 2025, the annual Judah M. Eisenberg Memorial Lecture. In his lecture, he presented new results from the LHCb experiment at the LHC, highlighted the significance of flavour physics and provided an overview of the LHCb detector. In addition to the lecture, he engaged in fruitful scientific discussions with faculty and researchers.

Introductory remarks were delivered by IAS Director Prof. Marek Karliner. During the event, the Judah Eisenberg Award for Academic Achievement was presented to Mr. Jonathan Kehat, a Ph.D. student, in recognition of his outstanding scholarly contributions.

Academic Achievement was presented to Mr. Jonathan Kehat, a Ph.D. student

Dr. Vagnoni described his visit to Tel Aviv University as extremely productive, highlighting the stimulating academic environment and the engaging discussions he had with faculty and students alike. He expressed his sincere gratitude to the Institute for Advanced Studies for its warm hospitality and for providing such an inspiring setting for scholarly exchange.

Inside the LHCb Experiment at CERN, where physicists probe the foundations of particle physics.

The Nirit and Michael Shaoul Fund for Visiting Scholars and Fellows

Established in 2015 by New York philanthropists Dr. Nirit Weiss and Dr. Michael Shaoul, the fund supported visits to Tel Aviv University by leading scholars from the US, Canada, and Europe across a wide range of academic fields. Selected as Nirit and Michael Shaoul Fellows, these distinguished guests were invited for periods ranging from one week to three months, during which they engaged in lectures, collaborative research, and academic exchange with TAU faculty and students.

Fellows were nominated by TAU researchers and selected by the IAS Academic Board for their international prominence and potential to foster meaningful academic collaboration.

Nirit and Michael Shaoul Fellows were invited for a period of either 1-2 weeks or 1-3 months and were expected to deliver a few lectures during their visit. They were free to carry out their own research at the University, to collaborate with other researchers in joint work, or to participate in any way they saw fit in the life of the University.

Many visitors have chosen to give a few lectures in their field of expertise. The lectures were frequently the highlight of the semester and attended by academics from all over Israel.

Over the past nine years, the program has hosted more than 50 Fellows and 3 major workshops, enriching TAU's intellectual environment and advancing international research partnerships.

2023-2024 Nirit and Michael Shaoul Fellow

Professor Dr. Georg Fischer

University Professor of Old Testament, Department of Biblical Studies and Historical Theology, Leopold Franzens University, Innsbruck, Austria

Prof. Dr. Georg Fischer

Prof. Georg Fischer visited the Department of Biblical Studies at TAU for almost two weeks, from June 23 till July 5, 2024. Prof. Fischer's visit was the final in the series of visits supported by the Shaoul framework, concluding the program on a successful note after nine years of activity.

Prof. Fischer is a Professor of Old Testament in the Department of Biblical Studies and Historical Theology at the Leopold-Franzens-University in Innsbruck, Austria.

Over the period of his visit, Prof. Fischer gave two lectures in two of our graduate program seminars.

On June 25, 2024 he lectured on "Does The Flood Story Make Sense As It Stands?" in the seminar of Dr. Talia Sutskover: "The Foundations of the Biblical Narrative". In this talk, he explored the literary complexity of the biblical Flood narrative (Genesis 6–9). Challenging the traditional critical view that the text is composed of conflicting sources, the talk highlighted recent approaches such as narrative analysis and hermeneutics. These methods reveal the Flood story as a coherent and

sophisticated literary work, rather than a fragmented compilation.

On June 30, 2024 he gave a second talk on "Ezekiel And Jeremiah Friends With Common Motifs" in the course of Prof. Dalit Rom-Shiloni on "Ezekiel: The Prophet and His Prophecy in a Babylonian Context". In this talks, he examined the complex relationship between the two prophets, highlighting both their contrasting contexts and overlapping themes. While Ezekiel, living in exile, focuses on purity and restoration, and Jeremiah, based in Judah, emphasizes the causes and consequences of the 587 BCE destruction, both share striking similarities. The talk explored these shared motifs and considered what they reveal about the prophets' connection and the broader biblical narrative.

The two lectures were received with interest and pleasure. As we all know, Prof. Fischer came to us on a very unstable and sad days. His compassion, piety, and love to the people of Israel were accepted with very emotional reaction by our faculty and students – Prof. Fischer completely won our confidence in his empathy. Furthermore, the participants expressed great appreciation to his thought-provoking lines of thinking,

Nirit and Michael Shaoul Fellow Prof. Georg Fischer, and his academic hosts Prof. Dalit Rom-Shiloni and Dr. Talia Sutskover

as he shared with us his ways of reading biblical texts. Following each of the lectures, MA and PhD students have expressed their appreciation on these two occasions of having the opportunity to meet, hear, and discuss with this renown scholar.

Prof. Fischer's visit allowed the entire faculty of the Department of Biblical Studies to get to know him, and vice versa. Both sides enjoyed that opportunity tremendously. Following his first lecture, Prof. Guy Darshan hosted Prof. Fischer for dinner.

Over those two weeks Prof. Fischer enjoyed the Saurasky Library and the Broshim accommodation, and was very satisfied with both. Prof. Fischer specifically mentioned to his academic host that these two weeks were very productive for him in both consolidating thoughts and writing the papers he was invited to write.

Prof. Fischer's visit was really of great importance for TAU's students as large and the Department of Biblical Studies in particular. It also enabled the Department of Biblical Studies to showcase itself to other departments inside the University, and not least in the international community of biblical scholars. His visit to TAU was a further mark of his support in Israel, and specifically, in Biblical scholarship taking place in Israel even under the current circumstances.

The Department of Biblical Studies thus, very much looks forward to further visits of this kind, that could further empower TAU's international status in the field of Hebrew Bible Studies.

" To conclude, allow me to thank The Institute of Advanced Studies; the Nirit and Michael Shaoul Fellowship program for their generous donation, for supporting this important visit; and not least, the Chair of our Department of Biblical Studies, Prof. Guy Darshan, for his support and co-operation.

Special thanks go to you, Mrs. Ronit Nevo and your team, for your distinctive care for every detail of the visit prior, during, and even after the occasion. Prof. Fischer appreciated immensely your personal care for him throughout. You have accompanied us also during the lectures and saw this lively academic experience I have described above. Ronit, as before, it really is a pleasure to have you and your team backing our academic enterprises."

Prof. Dalit Rom-Shiloni (Academic Host)

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