

The Ninth Symposium on Cyber Security, Cryptology and Machine Learning (CSCML 2025)

December 04-05, 2025

Tentative Full Program Schedule

Thursday, December 04, 2025				
Time	Main Room/ Academic Research Track		Other Tracks	
08:15–08:20 Israel	Opening Ceremony: Professor Shlomi Dolev			
08:20–09:10 Israel	Keynote Speaker 1: Alon Kaufman Talk Titled: From Cryptographic Theory to Engineered Reality: Building Scalable Digital Sovereignty and		8:15–8:45	Zoom Meeting to open the competition.
Z09:10–10:20 Israel Time UTC +2	Academic Track: Morning Session Moderator: Shlomi Dolev		PhD/ Masters Track Session 1: 9:05-10:20 Moderator: Oded Margalit	
	09:10–09:25	Improved Range Searching and Range Emptiness Under FHE Using Copy-And-Recurse Hayim Shaul and Eyal Kushnir	9:05–9:10	Welcome and Instructions
	09:25–09:40	Location Problems with Privacy Eric Kulikov and Michael Segal	9:10–9:20	EvH – A New Randomized Cipher Paradigm: Deriving Encryption from and with Information Compression and Correction (Preliminary Version) Hillel Avni, Shlomi Dolev, Komal Kumari, Stav Elbar, Shantanu Sharma, Jeffrey Ullman and Moti Yung
	09:40–09:55	Similarity-Based Retrieval over Homomorphic Encryption Ramy Masalha, Adi Akavia, and Reut Meiri	9:20–9:30	Commutative Permutations for Toy Example Key Exchange Protocol Shlomi Dolev, Amit Hendin, Ilan Kenis and Stav Perle Elbar
	09:55–10:10	A Generalized Wiener-type Attack Against an RSA-like Cryptosystem George Tesseanu	9:30–9:40	Accelerated Discovery of 2D Optoelectronic Materials via Interpretable Graph Neural Networks and High Throughput DFT Screening Mohamed Salem, Moustafa Youssef and Youssef Alomda

			9:40-9:50	Privacy-Preserving Federated Learning with Large Language Models for Cyber Threat Detection: A Cryptographic Approach to Distributed Intelligence Mohamed Salem
	Short: 10:10–10:20	Kolmogorov complexity based analysis of the zero distribution in LMSTAs of random k-SAT formulas Yannis Stamatiou, Vasiliki Liagkou, Paul Spirakis and Panagiotis Nastou	9:50-10:00	Network Intrusion Detection Datasets: A Systematic Literature Review Leonard Mutembei, Makhamisa Senekane and Terence van Zyl
10:20–10:45 Israel Time UTC +2	Break		Break	
10:45–12:10 Israel Time UTC +2	Academic Track: Mid-Morning Session Moderator: Shlomi Dolev		PhD/ Masters Track Session 2: 10:45-12:00 Moderator: Oded Margalit	
	10:45–11:00	Multi-party Time-lock Puzzles: Quorum Controlled Delays without a Single Point of Failure Karim Eldefrawy, Sashidhar Jakkamsetti, Benjamin Turner, and Moti Yung	10:45-10:50	Welcome and Instructions
	11:00–11:15	Robust and Verifiable MPC with Applications to Linear Machine Learning Inference Tzu-Shen Wang, Jimmy Dani, Juan Garay, Soamar Homsi, and Nitesh Saxena	10:50-11:00	Private Epigenetic PaceMaker Detector using Homomorphic Encryption Meir Goldenberg, Sagi Snir and Adi Akavia
	11:15–	From Adversity to Advantage: Diffusion Models for	11:00-11:10	Prompt Relativity Theory: A Relativistic Framework for AI Communication Mohamed Salem

	11:30	Improved Detection Under Attack Roie Kazoom, Raz Birman, and Ofer Hadar	11:10-11:20	T2GA: Converting Table Data to Graph Representation for Employing Graph Deanonimization Attacks (Preliminary Version) Prof. Shlomi Dolev, Prof. Michael Elhadad and Rie Ruash
	Short: 11:30–11:40	Machine Learning-Based Malware Detection on macOS (regular submission) Adrian Guo Xiang Low and Leonardo Aniello	11:30-11:40	Privacy-Preserving Federated Learning with Large Language Models for Cyber Threat Detection: A Cryptographic Approach to Distributed Intelligence Mohamed Salem
	Short: 11:40–11:50	Insights into Learning Broadcast Protocols Dana Fisman, Noa Izsak, and Swen Jacobs		

	Short: 11:50– 12:00	Predictive Enhancement of RBAC Policies Using Access Log Analytics Shmuel Amour and Ehud Gudes		
	Short: 12:00– 12:10	Books, Rooms, and Searle George Teseleanu		
12:10– 12:35 Israel Time UTC +2	Break		Break	
12:35– 13:50 Israel Time UTC +2	Academic Track: Noon Session Moderator: Shlomi Dolev		Entrepreneurship Session 1: 13:05-13:55 Moderator: Yonah Alexandre Bronstein	
	12:35– 12:50	Bitcoin+: Cheap Support for Complex Spending Conditions in a UTXO Ledger Yaron Kaner and Tal Moran	13:00– 13:05	Welcome and Instructions
			13:05– 13:20	Neural Multimodal IR–Visible Fusion for Real-Time Color Reconstruction in Low-Visibility Conditions Omer Linton and Michael Orkin
	12:50– 13:05	Random Data and Its Cryptographic Applications Eda Yavuziyigit and Oğuz Yayla	13:20– 13:35	Securing the Connected Car: A Multi-Layered Defense Against DoS, Spoofing, and Replay Attacks Haim Spaya
			13:35– 13:50	TwinkleQKD: Affordable, Resilient Quantum Key Distribution for All Shlomi Dolev
	13:05– 13:20	Real-World Deployment of Privacy-Preserving Machine Learning for Public Opinion in the 2024 U.S. Presidential Election Samuel Buxbaum, Lucas Tassis, Lucas Boschelli, Dino Christenson, Giovanni Comarela, Mark Crovella and Mayank Varia	13:50– 14:05	Physics-Guided Multimodal Fusion Daniel Shlomo
			14:05– 14:20	Impact AntisepTech Barak Katz

	13:20–13:35	Extended Meet in the Middle Attacks Using Cryptanalytic Approximations as DMZ Stav Elbar
	Short: 13:35–13:45	Avatar PLC/SCADA: Cloud Half-Twin for Industrial Control Systems Alon Dankner, Shlomi Dolev and Ehud Gudes
	Short: 13:45–13:55	Automatically Reviewing Movie Plots with LLMs Milka Kaplan, Armin Shmilovici and Mark Last

13:55–14:50 Israel Time UTC +2	Keynote Speaker 2: Bobby Blumofe Talk Titled: Why AI Will Rewrite the Cybersecurity Playbook Hosted by: Shlomi Dolev			
14:50–15:45 Israel Time UTC +2	Academic Track: Afternoon Session Moderator: Ehud Gudes		Entrepreneurship Session 2: 15:00-16:15 Moderator: Yonah Alexandre Bronstein	
	14:50–15:05	Meta-autoencoders: An approach to discovery and representation of relationships between dynamically evolving classes Assaf Marron, Smadar Szekely, Irun Cohen, and David Harel		
	Short: 15:05–15:15	Resiliency Trade-offs of DNSSEC Configurations to DDoS Attacks Daniel Dubnikov, Yehuda Afek, and Anat Bremler-Barr	14:20–14:35	Voting for the Three Best Pitches and wrapping up the session. The three best pitches will present their pitches again for 5 minutes each in front of the whole audience (main room) from 16:00-16:30, for a finalist to be chosen.

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15:15– 15:30	Path Optimization using DQN in the SCION Internet Architecture Oran Bourak, Tomer Burman, Tony John, Hadassa Daltrophe, Tammar Shrot and David Hausheer	
15:30– 15:45	Credit Card Fraud Detection Using Dynamic Attention and Multi-View Graph Learning Ankur Jain, Shivam Kushwah and Somanath Tripathy	
15:45–16:00	Converting Graph Data to Table Data for Employing Deanonymization Attacks Shlomi Dolev, Michael Elhadad and Rie Ruash	
16:00– 16:30 Israel Time UTC +2	Pitch Finalist Ceremony <i>Hosted By: Shlomi Dolev and Yonah Alexandre Bronstein</i> The three finalists from the Entrepreneurship (Pitch) Track will have 5 minutes to present their pitch again to the entire CSCML audience. Then the entire audience will get to vote for the best pitch.	

16:30–17:30 Israel Time UTC +2	Keynote Speaker 3: Alex Pentland Talk Titled: Hosted by: Shlomi Dolev		
17:30-17:55 Israel Time UTC +2	Academic Track: Evening Session Moderator: Rami Puzis		
	17:30-17:45	Contamination in Generated Text Detection Benchmarks Philipp Dingfelder and Christian Riess	
	Short: 17:45-17:55	PQ-STAR: Post-Quantum Stateless Auditable Rekeying (Brief Announcement) Shlomi Dolev, Avraham Yagudaev, and Moti Yung	
	Short: 17:55-18:05	SSPT: Shallowest Shortest Path Tree Omer Asher, Yefim Dinitz, Shlomi Dolev, Li-On Raviv, and Baruch Schieber	
18:05-18:15 Israel Time UTC +2	Closing Ceremony/ Remarks Hosted by: Professor Shlomi Dolev		