# **TEDDY LAZEBNIK**

Last update: 6.7.2024

#### PROFESSIONAL SUMMARY

Mathematical models and algorithms researcher and developer in the fields of epidemiology, medicine, economics, and information systems. More than a decade of experience in software development in the industry, including seven years of experience as an algorithm developer with a focus on data-driven algorithms for bio-medical tasks.

#### ACADEMIC EDUCATION

# **Ariel University**

2020 - 2021

Ph.D. in (Bio)mathematics

· Thesis about "Modeling and Numerical Calculation of Pandemic Spread and Optimal Oncology Treatment Protocols" - supervised by Prof. Svetlana Bunimovich-Mendrazitsky.

#### **Bar-Ilan University**

2017 - 2018

M.Sc. in Applied Mathematics

· Thesis about "Highly Stable Numerical Algorithm for Matrix Exponent" - supervised by Dr. Shlomo Yanetz.

# **Bar-Ilan University**

2013 - 2016

B.Sc. in Applied Mathematics

· Final project about "Observable of Discrete-continuous Linear Time Interval Systems with Continuous Time Measurement".

#### ACADEMIC EMPLOYMENT

# **Ariel University, Department of Mathematics**

October 2023 - Current

Assistant Professor

- · Lecturing Calculus 1 + 2 for mathematicians (Bachelor's degree).
- · Lecturing Calculus 1 for mechanical engineering (Bachelor's degree).

#### **Reichman University, Department of Computer Science**

Feb 2023 - July 2023

Teaching Associate

· Lecturing Operation Systems (Bachelor's degree).

# **Bar Ilan University, Department of Information Science and Department of Management** Feb 2023 - July 2023

Teaching Associate

- · Lecturing Business Intelligence (Bachelor's degree).
- · Lecturing Back-end Development (Bachelor's degree).

# **Holon Institute of Technology, Department of Computer Science**

Feb 2023 - July 2023

Teaching Associate

- · Lecturing "Introduction To Cybersecurity" (Bachelor's degree).
- · Lecturing "The Mathematical Aspects of Cybersecurity" (Master's degree) my own course.

# **University College London, Department of Cancer Biology**

Sep 2021 - Aug 2023

Honorary Post-doctoral researcher (Hosted by Prof Stephan Beck)

· Developed a novel artificial genomics generator using machine learning and bio-genomic models.

· Leading research in the development of personalized medicine through data-driven algorithms.

# **Bar-Ilan University, Department of Computer Science**

Jul 2020 - Jul 2021

Research And Teaching Assistant

- · Teaching the following courses: Advanced Programming 1 and Advanced Programming 2 all Bachelor's degree.
- · Academic research guidance for Master computer science students' final project.
- · Developed a Mathematical model & simulation of nanoparticles-based targeted drug delivery.
- · Developed a novel academic search engine from scratch to tackle local concept drift in academic search.

#### **Bar-Ilan University, Department of Mathematics**

Oct 2018 - Jul 2020

Research And Teaching Assistant

- · Teaching the following courses: Partial differential equations (PDE), Introduction to linear mathematical optimization, Numerical Analysis 1, and Tools for Numerical Programming for Engineering all Bachelor's degree.
- · Academic research guidance and code review for Bachelor and Master computer science students' final project.

# **Holon Institute of Technology, Department of Mathematics**

Feb 2020 - Jul 2020

Lecturer

· Teaching Deep Learning for Computer Vision (Bachelor's degree).

# Holon Institute of Technology, Department of Mathematics

Oct 2019 - Feb 2020

Teaching Assistant

· Teaching Numerical Analysis (Bachelor's degree).

# ACADEMIC HONORS AND AWARDS

Ariel University 2022

Ph.D. student

· A prize for academic excellence with multiple high-quality publications.

Bar-Ilan University 2017

M.Sc student

· A prize for excellence in studies and research at the master's degree in the name of David Barkovski.

# STUDENTS SUPERVISION

#### **Undergraduate students**

- · Bar Ilan University, Chen Tal-Schachar, 2018-2019 (Under the supervision of Prof' Gal A. Kaminka).
- · Bar Ilan University, Pedro Nissan, 2017-2017 (Under the supervision of Prof' Gal A. Kaminka).

# M.Sc. students

- · Bar Ilan University, Ariel Alexi, 2023-2024 (co-advisor with Dr. Ariel Rosenfeld).
- · Tel Aviv University, Liron Simon Keren, 2021-2022 (Help to advise with Prof' Alexander Liberzon).
- · University College London, Jackson Cheung, 2022 (Help to advise under the supervision of Prof' Stephan Beck).
- · Ariel University, Yonatan Herskowitz, 2022-2023 (co-advisor with Prof. Svetlana Bunimovich-Mendrazitsky).

#### P.hD. students

- · Ariel University, Adi Shuchami, 2024-current.
- · Bar Ilan University, Dr. Assaf Shmuel, 2023-current (co-advisor with Dr. Oen Glickman).

### **TEACHING COURSING**

#### **Academic courses**

- · Ariel University, Calculus 1.
- · Ariel University, Calculus 2.
- · Bar Ilan University, Introduction to cybersecurity for managers [my course].
- · Ariel University, Introduction to reinforcement learning [my course].
- · Reichman University, Operation Systems.
- · Holon Institute of Technology, Mathematical aspects in cybersecurity [my course].
- · Holon Institute of Technology, Introduction to cybersecurity [my course].
- · Bar Ilan University, Back-end development.
- · Bar Ilan University, Business Intelligence.
- · Bar Ilan University, Advanced Programming 2.
- · Bar Ilan University, Advanced Programming 1.
- · Bar Ilan University, Numerical Analysis (X2).
- · Bar Ilan University, Introduction to Linear Mathematical Optimization and Tools for Numerical Analysis for Engineers.
- · Holon Institute of Technology, Deep Learning for Computer Vision tasks.
- · Holon Institute of Technology, Numerical Analysis.
- · Bar Ilan University, Introduction to Linear Mathematical Optimization.
- · Bar Ilan University, Partial Differential Equations.

# **Industry courses**

- · Naya College, Data Science (420 hours course): Introduction to Programming in Python, Data Analysis, Introduction to Machine Learning, Introduction to Deep Learning, and Introduction to MLOps (X2).
- · Y-Data, Introduction to Machine Learning.

#### SCIENTIFIC PUBLICATIONS

#### **Scientific Journals**

- 1. **T. Lazebnik**, A. Rosenfeld, Detecting LLM-Assisted Writing in Scientific Communication: Are We There Yet?. Journal of Data and Information Science. 2024.
- 2. **T. Lazebnik**, Y. Golov, R. Gurka, A. Harari, A. Liberson, Exploration-Exploitation Model of Moth-Inspired Olfactory Navigation. Journal of the Royal Society Interface. 2024.
- 3. **T. Lazebnik**, S. Bunimovich-Mendrazitsky, Predicting the location of metastates of lung cancer using the location of the original location. Frontiers in Medicine. 2024.
- 4. A. Shmuel, **T. Lazebnik**, O. Glickman, Symbolic Regression as Feature Engineering Method for Machine and Deep Learning Regression Tasks. Machine Learning: Science and Technology. 2024.
- 5. A. Alexi, **T. Lazebnik**, A. Rosenfeld, The Scientometrics and Reciprocality Underlying Co-Authorship Panels in Google Scholar Profiles. Scientometrics. 2024.
- T. Lazebnik, L. Simon-Keren, Knowledge-integrated AutoEncoder Model. Expert Systems With Applications. 2024.
- 7. **T. Lazebnik**, Going a Step Deeper Down the Rabbit Hole: Deep Learning Model to Measure the Size of the Unregistered Economy. Computational economics. 2024.
- 8. **T. Lazebnik**, S. Bunimovich-Mendrazitsky, More Numerically Accurate Algorithm For Matrix Exponential. Mathematics. 2024.
- 9. **T. Lazebnik**, Cost-optimal Seeding Strategy During a Botanical Pandemic in Domesticated Fields. Chaos: an interdisciplinary journal of nonlinear science. 2024.

- 10. **T. Lazebnik**, A. Rosenfeld, A New Definition For Feature Selection Stability Analysis. (Accepted). Annals of Mathematics and Artificial Intelligence. 2024.
- 11. T. Travain, **T. Lazebnik**, A. Zamansky, S. Cafazzo, P. Valsecchi, E. Natoli, Environmental enrichments and data-driven welfare indicators for sheltered dogs using telemetric physiological measures and signal processing. Scientific Reports. 2024.
- 12. **T. Lazebnik**, S. Bunimovich-Mendrazitsky, A. Rosenfeld, An Algorithm to Optimize Explainability using Feature Ensembles. Applied Intelligence. 2024.
- 13. G. Dinu, **T. Lazebnik**, A. Rosenfeld, M. Mincu, O. Oren, I. Nicolae, A. Zamansky, BovineTalk: Machine Learning for Vocalization Analysis of Dairy Cattle in Negative Affective States. Frontiers in Veterinary Science. 2024.
- 14. L. Simon-keren, **T. Lazebnik**, A. Liberzon, Improved Prediction of Settling Behaviour of Solid Particles through Machine Learning Analysis of Experimental Retention Time Data. International Journal of Multiphase Flow. 2024.
- 15. **T. Lazebnik**, L. Shami, S. Bunimovich-Mendrazitsky, Hybrid Mathematical Model for Optimal Border Closure Policy during Pandemic. International Journal of Applied Mathematics and Computer Science. 2023.
- 16. N. Farhat, **T. Lazebnik**, J. Monteny, C. Moons, E. Wydooghe, D. van der Linden, A. Zamansky, Digitally-Enhanced Dog Behavioral Testing: Getting Help from the Machine. Scientific Reports. 2023.
- 17. J. Magana, D. Gavojdian, Y. Menachem, **T. Lazebnik**, A. Zamansky, A. Adams-Progar, Machine Learning Approaches to Predict and Detect Early-onset of Digital Dermatitis in Dairy Cows using Sensor Data. Frontiers in Veterinary Science. 2023.
- 18. A. Oren, J. D. Turkcu, S. Meller, **T. Lazebnik**, P. Wiegel, R. Mach, H. A. Volk, A. Zamansky, BrachySound: Machine Learning Based Assessment of Respiratory Sounds in Dogs. Scientific Reports. 2023.
- 19. **T. Lazebnik**, D. Gorlitsky, Can We Mathematically Spot Possible Manipulation of Results in Research Manuscripts Using Benford's Law?. Data. 2023.
- 20. T. Lazebnik, S. Beck, L. Shami, Academic Collaboration is a Risky Game. Scientometrics. 2023.
- 21. N. Cohen, **T. Lazebnik**, Trust and Street-Level Bureaucrats' Willingness to Risk Their Lives for Others: The Case of Brazilian Law Enforcement. The American Review of Public Administration. 2023.
- 22. **T. Lazebnik**, T. Fleischer, A. Yaniv-Rosenfeld, Benchmarking Biologically-inspired Automatic Machine Learning for Economic Tasks. Sustainability. 2023.
- 23. **T. Lazebnik**, Data-driven Hospitals Staff And Resources Allocation Using Agent-Based Simulation and Deep Reinforcement Learning. Engineering Applications of Artificial Intelligence. 2023.
- 24. **T. Lazebnik**, L. Simon-Keren, Cancer-inspired Genomics Mapper Model for the Generation of Synthetic DNA Sequences with Desired Genomics Signatures. Computers in Biology and Medicine. 2023.
- 25. A. Alexi, A. Rosenfeld, **T. Lazebnik**, Multi-Species Prey-Predator Dynamics During a Multi-Strain Pandemic. Chaos: An Interdisciplinary Journal of Nonlinear. 2023.
- 26. N. Vardi, **T. Lazebnik**, The Causal Role of Lockdowns in COVID-19: Conclusions from Daily Epidemiological, Psychological, and Sociological Data. Psychiatric Quarterly. 2023.
- 27. **T. Lazebnik**, S. Bunimovich-Mendrazitsky, A. Kiselyov, Mathematical Model for BCG-based Treatment Of Type 1 Diabetes. Physica A: Statistical Mechanics and its Applications. 2023.
- 28. Y.Herskowitz, S. Bunimovich-Mendrazitsky, **T. Lazebnik**, Mathematical Model Of Coffee Tree's Rast Control Using Snails As Biological Agents. Biosystems. 2023.
- 29. D. Krongauz, **T. Lazebnik**, Collective Evolution Learning Model for Vision-Based Collective Motion with Collision Avoidance. Plos One. 2023.

- 30. A. Alexi, **T. Lazebnik**, L. Shami, Microfounded tax revenue forecast model with heterogeneous population and genetic algorithm approach. Computational Economics. 2023.
- 31. **T. Lazebnik**, A. Rosenfeld, FSPL: A meta-learning approach for a filter and embedded feature selection pipeline. Applied Mathematics and Computer Science. 2023.
- 32. **T. Lazebnik**, S. Bunimovich-Mendrazitsky, Decision Tree Post-Pruning Without Loss Of Accuracy using the SAT-PP algorithm with an Empirical Evaluation on Clinical Data. Data & Knowledge Engineering. 2023.
- 33. **T. Lazebnik**, L. Shami, S. Bunimovich-Mendrazitsky, Intervention Policy Influence on the Effect of Epidemiological Crisis on Industry-Level Production Through Input-Output Networks. Socio-Economic Planning Sciences. 2023.
- 34. A. Yaniv-Rosenfeld, E. Savchenko, A. Rosenfeld, **T. Lazebnik**, Scheduling BCG and IL-2 Injections for Bladder Cancer Immunotherapy Treatment. Mathematics. 2023.
- 35. L. Shami, **T. Lazebnik**, Implementing Machine Learning Methods in Estimating the Size of the Non-Observed Economy. Computational Economics. 2023.
- 36. L. Shami, **T. Lazebnik**, Financing and managing epidemiological-economic crises: Are we ready for another outbreak?. Journal of Policy Modeling. 2023.
- 37. L. Simon-Keren, A. Liberson, **T. Lazebnik**, A Computational Framework For Physics-Informed Symbolic Regression with Straightforward Integration of Domain Knowledge. Scientific Reports. 2023.
- 38. **T. Lazebnik**, A. Alexi, High resolution spatio-temporal model for room-level airborne pandemic spread. Mathematics. 2023.
- 39. **T. Lazebnik**, U. Itai, Bounding Pandemic Spread By Heat Spread. Journal of Engineering Mathematics. 2023.
- 40. A. Alexi, A. Rosenfeld, **T. Lazebnik**, A Security Games Inspired Approach for Distributed Controlling Of Pandemic Spread. Advanced Theory and Simulations. 2022.
- 41. **T. Lazebnik**, S. Bunimovich-Mendrazitsky, S. Ashkenazi, E. Levner, A. Benis, Early Detection and Control of the Next Epidemic Wave using Health Communications: Development of an Artificial Intelligence-based Tool and its Validation on COVID-19 Data from the US. International Journal of Environmental Research and Public Health. 2022.
- 42. Y. A. Veturi, W. Woof, **T. Lazebnik**, I. Moghul, P. Woodward-Court, S. K. Wagner, T. A. C. de Guimarães, M. D. Varela, B. Liefers, S. Beck, A. R. Webster, O. Mahroo, P. A. Keane, M. Michaelides, K. Balaskas, N. Pontikos, SynthEye: Investigating the impact of synthetic data on AI-assisted gene diagnosis of Inherited Retinal Disease. Ophthalmology Science. 2022.
- 43. A. Alexi, A. Rosenfeld, **T. Lazebnik**, The Trade-off Between Airborne Pandemic Control and Energy Consumption Using Air-Ventilation Solutions. Sensors. 2022.
- 44. L. Shami, **T. Lazebnik**, Economic Aspects of the Detection of New Strains in a Multi-Strain Epidemiological Mathematical Model. Chaos, Solitons & Fractals. 2022.
- 45. **T. Lazebnik**, Cell-level Spatio-Temporal Model for Bacillus Calmette-Guerin Based Immunotherapy Treatment Protocol of Superficial Bladder Cancer. Cells. 2022.
- 46. T. Gargantini, M. Daly, J. Sherlock, **T. Lazebnik**. Providing Safe Space for Honest Mistakes in the Public Sector Is The Most Important Predictor For Work Engagement After Strategic Clarity. Sustainability. 2022.
- 47. **T. Lazebnik**, Z. Bahouth, S. Bunimovich-Mendrazitsky, S. Halachmi, Predicting Acute Kidney Injury Following Open Partial Nephrectomy Treatment Using SAT-Pruned Explainable Machine Learning Model. BMC Medical Informatics and Decision Making. 2022.
- 48. **T. Lazebnik**, S. Bunimovich-Mendrazitsky, Generic Approach For Mathematical Model of Multi-Strain Pandemics. Plos One. 2022.

- 49. S. Natan, **T. Lazebnik**, E. Lerner, A distinction of three online learning pedagogic paradigms. SN Social Science. 2022.
- 50. Z. Zemah-Shamir, S. Zemah-Shamir, A. Scheinin, D. Tchernov, **T. Lazebnik**, G. Gal, A Systematic Review of the Behavioural Changes and Physiological Adjustments of Elasmobranchs and Teleost's to Ocean Acidification with a Focus on Sharks. Fishes. 2022.
- 51. **T. Lazebnik**, G. Blumrosen, Advanced Muti-Mutation with Intervention Policies Pandemic Model. IEEE Access. 2022.
- 52. E. Savchenko, **T. Lazebnik**, Computer Aided Functional Style Identification and Correction In Modern Russian Texts. Journal of Data, Information and Management. 2022.
- 53. **T. Lazebnik**, A. Alexi, Comparison of Pandemic Intervention Policies in Several Building Types Using Heterogeneous Population Model. Communications in Nonlinear Science and Numerical Simulation. 2022.
- 54. **T. Lazebnik**, L. Shami, S. Bunimovich-Mendrazitsky, Pandemic Management by a Spatio-temporal Mathematical Model. International Journal of Nonlinear Sciences and Numerical Simulation. 2021.
- 55. **T. Lazebnik**, S. Bunimovich-Mendrazitsky, L. Shaikhet, Novel Method to Analytically Obtain the Asymptotic Stable Equilibria States of Extended SIR-type Epidemiological Models. Symmetry. 2021.
- 56. **T. Lazebnik**, L. Shami, S. Bunimovich-Mendrazitsky, Spatio-Temporal Influence of Non-Pharmaceutical Interventions Policies on Pandemic Dynamics and the Economy: The Case of COVID-19. Economic Research-Ekonomska Istrazivanja. 2021.
- 57. **T. Lazebnik**, S. Bunimovich-Mendrazitsky, The signature features of COVID-19 pandemic in a hybrid mathematical model implications for optimal work-school lockdown policy. Advanced Theory and Simulations. 2021.
- 58. **T. Lazebnik**, S. Bunimovich-Mendrazitsky, N. Aaroni, PDE based geometry model for BCG immunotherapy of bladder cancer. Biosystems. 2020.

#### **Review Articles**

1. **T. Lazebnik**, Computational Applications of Extended SIR Models: A Review Focused on Airborne Pandemics. 2023. Ecological Modelling.

# **Proceedings Papers**

- 1. **T. Lazebnik**, A. Somech, Demonstrating SubStrat: A Subset-Based Strategy for Faster AutoML on Large Datasets. International Conference on Very Large Data Bases (VLDP). 2023.
- 2. **T. Lazebnik**, S. Bunimovich-Mendrazitsky, Improved Geometric Configuration for the Bladder Cancer BCG-based Immunotherapy Treatment Model. ISMCO. 2021.

#### **Manuscripts Submitted / Under Review**

- 1. T. Lazebnik, H. Weitman, Y. Goldberg, G. A. Kaminka, Rivendell: Project-Based Academic Search Engine.
- 2. N. Cohen, **T. Lazebnik**, Agent-Based Simulation of Street-Level Bureaucrats' Prosocial Tendencies in the Traditional, NPM, and Post-NPM Approaches to Public Administration.
- 3. L. Shami, T. Lazebnik, O. Akirev, Analysis of the Optimal Number of Ministers: The Case of Israel.
- 4. T. Lazebnik, A. Rosenfeld, How Academic Collaborations Influence Authors' Writing Style.
- 5. **T. Lazebnik**, L. Shami, A. Alexi, A. Rosenfeld, Economical-Epidemiological Analysis of the Coffee Trees Rust Pandemic.
- 6. N. Cohen, M. Davidovich, **T. Lazebnik**, Trust and Street-Level Bureaucrats' Perceptions about Organizational Readiness for Emergencies.
- 7. **T. Lazebnik**, The Family Tree Graph as a Predictor of the Family Members' Satisfaction with One Another.

- 8. L. Shami, **T. Lazebnik**, Nash and Trading Equilibria in a Public Good Economy with Finite Number of Private and Public Goods and Asymmetrical Agents.
- 9. **T. Lazebnik**, O. Iny, Temporal Graphs Anomaly Emergence Detection: Benchmarking For Social Media Interactions.
- 10. A. Rosenfeld, A. Alexi, L. Mushiev, **T. Lazebnik**, The Academic Midas Touch: An Unconventional Scientometric for Evaluating Academic Excellence.
- 11. A. Fenster, **T. Lazebnik**, Mathematical Model of Dating Apps' Influence on Sexually Transmitted Diseases Spread Dynamics.
- 12. **T. Lazebnik**, O. Speigel, Individual Variation Affects Outbreak Magnitude and Predictability in an Extended Multi-Pathogen SIR Model of Pigeons Vising Dairy Farms.
- 13. N. Vardi, **T. Lazebnik**, M. Bar, Data-Using Machine Learning to Evaluate Ruminative Thinking From Associative Responses.
- 14. M. Glebov, **T. Lazebnik**, B. Orkin, H. Berkenstadt, S. Bunimovich-Mendrazitsky, Predicting Postoperative Nausea And Vomiting Using Machine Learning: A Model Development and Validation Study.
- 15. G. Martvel, **T. Lazebnik**, M. Feighelstein, L. Henze, S. Meller, I. Shimshoni, F. Twele, A. Schütter, N. Dorn, S. Kastner, L. Finka, S. P. L. Luna, D. S. Mills, H. A. Volk, A. Zamansky, Automated Pain Recognition in Cats using Facial Landmarks: Dynamics Matter.
- 16. Automated Landmark-Based Cat Facial Analysis and its Applications. T. Martvel, **T. Lazebnik**, M. Feighelstein, S. Meller, I. Shimshoni, L. Finka, S. Luna, D. Mills, H. A. Volk, A. Zamansky.
- 17. R. Peleg, **T. Lazebnik**, A. Hoogi. Fast-Adaptive Moment Estimation with Finance-Inspired Triple Exponential Moving Average.
- 18. **T. Lazebnik**. Pulling the Carpet Below the Learner's Feet: Genetic Algorithm To Learn Ensemble Machine Learning Model During Concept Drift.
- 19. L. Shami, **T. Lazebnik**, Got much, got nothing: Analyzing the impact of increased special interest groups' influence on utility.
- 20. A. Shmual, **T. Lazebnik**, O. Glickman, E. Heifetz, C. Price, Lightning-Ignited Wildfires On A Global Scale: Prediction and Climate Change Projections based on Explainable Machine Learning Models.
- 21. G. Martvel, L. Scott, B. Florkiewicz, A. Zamansky, I. Shimshoni, **T. Lazebnik**, AI for Feline Faces: A Computational Investigation of the Social Function of Domestic Cat Facial Signals.
- 22. O. Edri-Peer, **T. Lazebnik**, N. Cohen, Which People Obey the Law? A Decision Tree Model for Profiling Vigilantes.
- 23. **T. Lazebnik**, A. Rosenfeld, Whose LLM is it Anyway? Linguistic Comparison and LLM Attribution for GPT-3.5, GPT-4 and Bard.
- 24. **T. Lazebnik**, Transforming Norm-based To Graph-based Spatial Representation for Spatio-Temporal Epidemiological Models.
- 25. M. Levi, **T. Lazebnik**, S. Kushnir, N. Yosef, D. Shlomi, Machine Learning Computational Model to predict Lung Cancer Using Electronic Medical Records.
- 26. L. Schwartz, N. Matania, M. Levi, **T. Lazebnik**, S. Kushnir, N. Yosef, A. Hoogi, D. Shlomi, Machine Learning Computational Model to Predict Lung Cancer Using Electronic Medical Records.
- 27. B. Norton, A. Zamansky, B. Florkiewicz, **T. Lazebnik**, The Art of Chimpanzee Diplomacy: Unraveling the Secrets of Successful Negotiations Using AI.
- 28. A. Shmual, O. Glickman, **T. Lazebnik**, Improving Machine and Deep Learning models' Out Of Distribution Performance using Symbolic Regression.

- 29. A. Shmual, **T. Lazebnik**, O. Glickman, Follow the Forest Trail: Data Augmentation by Gradient Boosting Models to Enhance Symbolic Regression Performance.
- 30. **T. Lazebnik**, A. Friedman, Spatio-Temporal Model of Combining Chemotherapy with Senolytic Treatment in Lung Cancer.
- 31. **T. Lazebnik**, Evaluating Supply Chain Resilience During Pandemic Using Agent-based Simulation.
- 32. A. Shmual, O. Glickman, **T. Lazebnik**, Data Augmentation for Deep Learning Regression Tasks by Machine Learning Models.
- 33. M. Kastin, M. Glebov, H. Berkenstadt, Yaniv-Rosenfeld, A. **T. Lazebnik**, Developing Machine Learning-based Prediction Model for Postinduction Hypotension.
- 34. A. Shmual, O. Glickman, **T. Lazebnik**, A Comprehensive Benchmark of Machine and Deep Learning Across Diverse Tabular Datasets.
- 35. **T. Lazebnik**, Introducing 'Inside' Out of Distribution.

#### **Grants received**

- "Incidence and risk factors for recurrent urinary tract infection in children caused by bacilli ESBL", 20000 NIS

   received 12500 NIS.
- 2. "Implementation of artificial intelligence methods to improve early detection of disease outbreaks, public responses, prevention and management", 15000 NIS received 4000 NIS.

# **Editorial work**

- 1. **Journal:** Cells. **Position:** Guest editor of a special issue entitled "Cell-Cell Interaction Modelling of Cancer Immunotherapy Treatments", 1.2022 2.2023.
- 2. Journal: Frontiers in Applied Mathematics and Statistics. Position: Review editor, 12.2022 now.

#### **Conference Talks**

- 1. **Subject: Lazebnik, T.**, Shami, L., Got much, got nothing: Analyzing the impact of increased special interest groups' influence on utility.
  - Conference: The 47th Eurasia Business and Economics Society conference, 04.2024.
- 2. **Subject:** Simon-Keren, L., **Lazebnik, T.**, Liberzon, A., Predictive correlations for particle motion across a stratified interface using machine learning .
  - **Conference:** The 14th International ERCOFTAC symposium on Engineering, Turbulence, Modelling and Measurements, 09.2023.
- 3. **Subject: Lazebnik, T.**, Using ML models in infectious diseases prediction with economical constraints. **Conference:** AI2 medicine in the AI Era, 05.2023.
- 4. **Subject: Lazebnik, T.** and Bunimovich-Mendrazitsky, S., Extended Mathematical Model for the BCG-based Treatment of Type 1 Diabetes.
  - **Conference:** Dynamical Systems Applied To Biology And Natural Science, 02.2023.
- 5. **Subject: Lazebnik, T.** and Bunimovich-Mendrazitsky, S., Mathematical Model for the BCG-based Treatment of Type 1 Diabetes.
  - **Conference:** Dynamical Systems Applied To Biology And Natural Science, 02.2022.
- 6. **Subject:** Shami, L. and **Lazebnik, T.**, Financing and Managing Epidemiological-Economic Crisis: The Reserve Model.
  - **Conference:** ICEA, Public Policy Lessons conference, 11.2021.
- 7. **Subject: Lazebnik, T.**, Shami, L., and Bunimovich-Mendrazitsky, S., Epidemiological-Economical Pandemic Management By A Spatio-Temporal Mathematical Model.
  - **Conference:** Dynamical Systems Applied To Biology And Natural Science, 02.2021.