Shlomi Reuveni – Curriculum Vitae

PERSONAL DETAILS

School of Chemistry, Tel-Aviv University, Tel-Aviv 69978, Israel.
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EDUCATION

2003 – 2007	Four years of intensive undergraduate studies as a student of the "*Adi Lautman Interdisciplinary Program for Outstanding Students*" at Tel Aviv University. Main interests: Mathematics, Physics, Chemistry and Biology.
2007	M.Sc. (Direct Track) in Physical Chemistry, *Summa Cum Laude*, School of Chemistry, Tel Aviv University. Thesis: "*Proteins: Unraveling Universality in a Realm of Specificity*". Supervisor: Prof. Yossi Klafter.
2008	B.Sc. in Mathematics, *Summa Cum Laude*, School of Mathematical Sciences, Tel Aviv University.
2013	Ph.D., School of Chemistry, Tel Aviv University. Dissertation Title: "*The Fractal-Like Nature of Proteins: Foundations, Applications and Ramifications*". Supervisor: Prof. Yossi Klafter.
2014	Ph.D., School of Mathematical Sciences, Tel Aviv University. Dissertation Title: "*Tandem Stochastic Systems: The Asymmetric Simple Inclusion Process*". Supervisors: Prof. Uri Yechiali and Prof. Iddo Eliazar.

ACADEMIC AND PROFESSIONAL EXPERIENCE

2008 – 2011	Teaching Assistant, *Introduction to Statistical Mechanics*, Third Year Chemistry Students, Tel Aviv University.
2008 – 2012	Teaching Assistant, *Chemical Kinetics*, First Year Chemistry Students, Tel Aviv University.
2011	Teaching Assistant, *Advanced Statistical Theory*, Graduate Students in Probability and Statistics, Tel Aviv University.
2011 – 2012	Lecturer, *General Chemistry*, Scientists of the Future Program for the Gifted Youth, Tel Aviv University.
2011 – 2013	Lecturer, *First Steps in Random Walks*, Third Year and Graduate Chemistry Students, Tel Aviv University.
2013 – 2017	JSMF Postdoctoral Fellow, Paulsson Lab, Department of Systems Biology, Harvard Medical School.
2017 –	Senior Lecturer (Equivalent to U.S. Assistant Professor), School of Chemistry, Tel Aviv University.

FIELDS OF INTEREST

Statistical Physics, Physical Chemistry, Biological Physics, Probability and Statistics, Stochastic Processes, Operations Research.

ACADEMIC VISITS

Feb. 6-22, 2020 Banaras Hindu University, Varanasi, India. As part of SPARC Grant: "*DNA Bubble Formation: From Physics to Biological Functions*", and to give mini-course on diffusion and random walks for M.Sc. Physics Students.

ACADEMIC SERVICE

Reviewed for *Proc. Natl. Acad. Sci., Nat. Commun., Phys. Rev. Lett., Phys. Rev. X, Phys. Rev. E, JSTAT, Cell. Mol. Life. Sci., Biophys. J., J. Phys. Chem., J. Chem. Phys., J. Phys. A, Physica A, IEEE/ACM Trans. Comput. Biol. Bioinf., J. Math. Biol., Questa, Probab. Eng. Inf. Sci., German-Israeli Foundation for Scientific Research and Development*.

Editor *Stochastic Resetting: Theory and Applications.* Special issue of the Journal of Physics A. In Celebration of the 10th Anniversary of 'Diffusion with Stochastic Resetting' [Phys. Rev. Lett. 106, 160601, 2011].

STUDENTS AND POSTDOCS

10/2017 – 7/2021	Dr. Arnab Pal	Postdoc (Now at IIT Kanpur)
06/2018 – 12/2020	Dr. Somrita Ray	Postdoc (Now at IIT Tirupati)
2/2018 – 8/2021	Mr. Omri Ben Senior	M.Sc. Student
10/2018 – Today	Dr. Sarah Kostinski	Postdoc
2/2018 – Today	Mr. Ofek Lauber	Ph.D. Student
12/2018 – Today	Mr. Yuval Scher	Ph.D. Student
8/2021 – Today	Dr. Divya Singh	Postdoc
10/2021 – Today	Dr. Maxence Arutkin	Postdoc

ORGANIZATION OF WORKSHOPS AND CONFERENCES

1. **Organizer**, TAU BioSoft Day #1, Tel Aviv University, Israel, 2019.
2. **Member of Organizing Committee**, Israel Biophysical Society Meeting, Tel Aviv University, Israel, 2019.
3. **Organizer**, TAU BioSoft Day #2, Tel Aviv University, Israel, 2020 (postponed, COVID-19).
4. **Session Head (Stat-Phys1 & Stat-Phys2)**, Israel Physical Society Meeting, 2021.
5. **Organizer**, TAU BioSoft Day #2, Tel Aviv University, Israel, 2021.

INVITED LECTURES IN WORKSHOPS AND CONFERENCES

1. **Invited Talk**, *Proteins: Coexistence of Stability and Flexibility*, Valuetools 2008, Athens Greece.

2. **Invited Talk**, *Vibrational Shortcut to the Mean-First-Passage-Time Problem*, The Fifth International Workshop on Applied Probability - IWAP 2010, Madrid Spain.

3. **Invited Talk**, *Anomalies in the Vibrational Dynamics of Proteins are a Consequence of Fractal-Like Structure*, The 9th Stadler Minerva student workshop, Soft matter: Where Physics, Chemistry, and Biology Meet, Beer Sheva & Ein-Gedi, Israel, 2011.

4. **Invited Talk**, *Occupation Probabilities in the Asymmetric Inclusion Process*, YEQT-VI workshop, Eurandom, Eindhoven, Netherlands, 2012.

5. **Invited Talk**, *The Asymmetric Inclusion Process: Complexity and Limit Laws*, The Sixth International Workshop on Applied Probability - IWAP 2012, Jerusalem, Israel, 2012.

6. **Invited Talk**, *The Asymmetric Inclusion Process*, Statistical Mechanics Day V, Weizmann Institute of Science, Israel, 2012.

7. **Invited Talk**, *Sculpted by Auto-Replication*, Computational Modeling of Gene Expression and its Evolution, Tel Aviv University, Israel, 2015.

8. **Invited Talk**, *First Passage Under Restart*, The Joint Tel Aviv University – ESPCI Paris Workshop on Soft and Biological Matter, Paris, France, 2017.

9. **Invited Talk**, *Sculpted by Self-Replication*, The Raymond & Beverly Sackler International Prize in Biophysics, Tel Aviv University, Israel, 2017.

10. **Invited Talk**, *Feller's Paradox and the Ever-Fluctuating Enzyme*, Correlations, Fluctuations and Anomalous Transport in Systems Far From Equilibrium, Weizmann Institute of Science, Israel, 2018.

11. **Invited Talk**, *Feller's Paradox and the Ever-Fluctuating Enzyme*, New Horizons in Chemistry: From Fundamentals to Applications, Tel Aviv University, Israel, 2018.

12. **Invited Talk**, *First Passage Under Restart*, Applied Probability and Queueing Day, Technion – Israel Institute of Technology, Israel, 2018.

13. **Invited Talk**, *Sculpted by Self-Replication*, TAU-LMU Workshop on Biophysics, Tel Aviv University, Israel, 2018.

14. **Invited Talk**, *Feller's Paradox and the Ever-Fluctuating Enzyme*, Annual Meeting of the Operations Research Society of Israel, Ben-Gurion University of the Negev, Beer-Sheva, Israel, 2018.

15. **Invited Talk**, *First Passage Under Restart*, Search and Problem Solving by Random Walks: Drunkards vs. Quantum Computers, Physikzentrum Bad Honnef, Germany, 2018.

16. **Invited Talk**, *Sculpted by Self-Replication*, Workshop on Operations Research of Biological Systems, International Centre for Theoretical Physics, Trieste, Italy, 2018.

17. **Invited Talk**, *First Passage Under Restart with Branching*, Next Step in Random Walks: Understanding Mechanisms Behind Complex Spreading Phenomena, Tel Aviv University, Israel, 2018.

18. **Invited Talk**, *Restart: The Physics of Starting Anew*, Dynamic Processes in Living Systems, I-Core Annual Meeting, Jerusalem, Israel, 2019.

19. **Invited Talk**, *Gumbel Central Limit Theorem for Max-Min and Min-Max*, Statistical Mechanics Day XI, Weizmann Institute of Science, Israel, 2019.

20. **Invited Talk**, *Restart: The Physics of Starting Anew*, The Twenty-Fifth Israeli Mini-Workshop in Applied and Computational Mathematics, Bar-Ilan University, Israel, 2019.

21. **Invited Talk**, *Proteins, Fractals, and Random Walks*, SPARC Workshop: "DNA Bubble Formation: From Physics to Biological Function", Banaras Hindu University, Varansi, India, 2020.

22. **Invited Talk**, *Restart: The Physics of Starting Anew*, 33rd M. Smoluchowski Symposium on Statistical Physics, 2020.

INVITED LECTURES IN SEMINARS

1. **Invited Talk**, *Proteins: Coexistence of Stability and Flexibility*, Bioinformatics Seminar, Tel Aviv University, 2008.

2. **Invited Talk**, *Searching for Universality in Proteins*, DIP Meeting, Tel Aviv University, Israel, 2010.

3. **Invited Talk**, *From the Fractal-Like Nature of Proteins to a Mapping Between Thermal Vibrations and Random Walks*, Department of Physics of Complex Systems, Weizmann Institute of Science, Israel, 2011.

4. **Invited Talk**, *From the Fractal-Like Nature of Proteins to a Mapping Between Thermal Vibrations and Random Walks*, Biosoft Seminar, Tel Aviv University, Israel, 2011.

5. **Invited Talk**, *From the Fractal-Like Nature of Proteins to a Mapping Between Thermal Vibrations and Random Walks*, Department of Systems Biology, Harvard Medical School, Boston, U.S.A., 2012.

6. **Invited Talk**, *Vibrational Shortcut to the Mean-First-Passage-Time Problem*, Probing and Manipulating Biomolecules: From Single Molecules to an Ensemble. DIP Status Workshop, Ludwig Maximilian University of Munich, 2012.

7. **Invited Talk**, *Occupation Probabilities in the Asymmetric Inclusion Process*, Department of Physics of Complex Systems, Weizmann Institute of Science, Israel, 2012.

8. **Invited Talk**, *Tandem Stochastic Systems - From the Early Days of the Internet to Single-Molecule Enzymology*, Biosoft Seminar, Tel Aviv University, Israel, 2013.

9. **Invited Talk**, *Role of Substrate Unbinding in Michaelis–Menten Enzymatic Reactions*, Widely Applied Math Seminar, Harvard University, Boston, 2014.

10. **Invited Talk**, *Sculpted by Auto-Replication*, Department of Systems Biology, Harvard Medical School, Boston, 2015.

11. **Invited Talk**, *Sculpted by Auto-Replication*, Department of Physics of Complex Systems, Weizmann Institute of Science, Israel, 2015.

12. **Invited Talk**, *Sculpted by Auto-Replication*, Racah Institute of Physics, Hebrew University of Jerusalem, Israel, 2015.

13. **Invited Talk**, *Sculpted by Auto-Replication*, School of Chemistry, Tel Aviv University, Israel, 2015.

14. **Invited Talk**, *Sculpted by Auto-Replication*, Fritz Haber Research Center for Molecular Dynamics, Hebrew University of Jerusalem, Israel, 2015.

15. **Invited Talk**, *Sculpted by Auto-Replication*, Schulich Faculty of Chemistry, Technion, Israel, 2015.

16. **Invited Talk**, *Sculpted by Auto-Replication*, Network Biology Research Laboratories, Technion, Israel, 2015.

17. **Invited Talk**, *Michaelis-Menten Kinetics: More Than Enzyme Catalysis*, Department of Physics, Technion, Israel, 2016.

18. **Invited Talk**, *Michaelis-Menten Kinetics: More Than Enzyme Catalysis*, Racah Institute of Physics, Hebrew University of Jerusalem, Israel, 2016.

19. **Invited Talk**, *Michaelis-Menten Kinetics: More Than Enzyme Catalysis*, Department of Physics of Complex Systems, Weizmann Institute of Science, Israel, 2016.

20. **Invited Talk**, *Michaelis-Menten Kinetics: More Than Enzyme Catalysis*, Department of Physics, Bar-Ilan University, Israel, 2016.

21. **Invited Talk**, *Michaelis-Menten Kinetics: More Than Enzyme Catalysis*, School of Chemistry, Tel Aviv University, Israel, 2016.

22. **Invited Talk**, *First Passage Under Restart*, Laboratoire de Physique Théorique et Modèles Statistiques (LPTMS), Université de Paris-Sud, Orsay, France, 2017.

23. **Invited Talk**, *First Passage Under Restart*, Capital Fund Management, Paris, France, 2017.

24. **Invited Talk**, *Ribosomes are Optimized for Autocatalytic Production*, CDG Meeting, Harvard University, Boston, 2017.

25. **Invited Talk**, *Sculpted by Self-Replication*, Department of Structural Biology, Weizmann Institute of Science, Israel, 2018.

26. **Invited Talk**, *Restart: The Physics of Starting Anew*, Department of Environmental Physics and Solar Energy, Sde Boker, Ben-Gurion University, Israel, 2019.

27. **Invited Talk**, *Restart: The Physics of Starting Anew*, Biological and Soft-Matter Physics Seminar, Ben-Gurion University, Israel, 2020.

28. **Invited Talk**, *Restart: The Science of Starting Anew*, Fritz Haber Research Center for Molecular Dynamics, Hebrew University of Jerusalem, Israel, 2021.

29. **Invited Talk**, *Restart: The Science of Starting Anew*, Bioclub Seminar, Hebrew University of Jerusalem, Israel, 2021.

PARTICIPATION IN WORKSHOPS AND CONFERENCES

1. **Talk and Poster**, *Proteins: Coexistence of Stability and Flexibility*, ISMB 2008 3DSIG, Toronto, Canada, 2008.

2. **Poster**, *Proteins: Coexistence of Stability and Flexibility*, The 74th Annual Meeting of the Israeli Chemical Society, Tel Aviv, Israel, 2009.

3. **Poster**, *Proteins: Coexistence of Stability and Flexibility*, The 12th Israeli Bioinformatics Symposium, Weizmann Institute of Science, Israel, 2009.

4. **Participation**, The 59th Meeting of Nobel Laureates Dedicated to Chemistry, Lindau, Germany, 2009.

5. **Talk**, *Proteins: Coexistence of Stability and Flexibility*, Thermodynamically Unstable Proteins: Chance or Necessity? Trieste, Italy, 2009.

6. **Poster**, *Anomalies in the Vibrational Dynamics of Proteins are a Consequence of Fractal-Like Structure*, Physics2Life: a workshop and school in biological physics, Weizmann Institute of Science Israel, 2010.

7. **Poster**, *Anomalies in the Vibrational Dynamics of Proteins are a Consequence of Fractal-Like Structure*, Anomalous Transport: from Billiards to Nanosystems, Sperlonga Italy, 2010.

8. **Poster**, *Anomalies in the Vibrational Dynamics of Proteins are a Consequence of Fractal-Like Structure*, Annual Meeting of the Israel Biophysical Society, Weizmann Institute of Science Israel, 2010.

9. **Talk**, *Vibrational Shortcut to the Mean-First-Passage-Time Problem*, Annual Meeting of the Israel Physical Society, Tel Aviv University, Israel, 2010.

10. **Participation**, The Beg Rohu Summer School: Statistical Physics and Complex Systems. Saint Pierre Quiberon, Brittany, France, 2011.

11. **Talk**, *The Asymmetric Inclusion Process*, IFIP Performance, 29th International Symposium on Computer Performance, Modeling, Measurements and Evaluation, Amsterdam, Netherlands, 2011.

12. **Talk**, *Tandem Markovian Queues with Unbounded Batch Service*, Operations Research Society of Israel, Student Symposium, Israel, Tel Aviv University, 2011.

13. **Poster**, *Anomalies in the Vibrational Dynamics of Proteins are a Consequence of Fractal-Like Structure*, The Fourth HOPE Meeting of Nobel Laureates, Tsukuba International Congress Center, Tsukuba, Japan, 2012.

14. **Talk**, *The Asymmetric Inclusion Process: A Showcase of Complexity*, The Israeli Operations Research Society - ORSIS 2012 - Conference, Ma'aleh Ha'Hamisha, Israel, 2012.

15. **Session Organizer**, *Jobs and Particles: Where Statistical Physics and Queueing Theory Meet*, The Sixth International Workshop on Applied Probability - IWAP 2012, Jerusalem, Israel, 2012.

16. **Poster**, *Dynamic Structure Factor of Vibrating Fractals,* Batsheva de Rothschild Seminar on Soft Matter and Biophysics, Ben Gurion University of the Negev and the Dead Sea, Israel, 2013.

17. **Poster**, *Role of Substrate Unbinding in Michaelis–Menten Enzymatic Reactions*, 58th Annual Meeting of the Biophysical Society, San Francisco, California, 2014.

18. **Poster**, *Role of Substrate Unbinding in Michaelis–Menten Enzymatic Reactions*, Novel Applications of Statistical Mechanics: A Celebration of Sidney Redner's Contributions, Boston University, 2014.

19. **Poster**, *Role of Substrate Unbinding in Michaelis–Menten Enzymatic Reactions*, Systems Biology Department Retreat, Sebasco Harbor Resort, 2014.

20. **Poster**, *Role of Substrate Unbinding in Michaelis–Menten Enzymatic Reactions*, James S. McDonnell Foundation, Studying Complex Systems Scholars & Postdoc Meeting, Atlanta, Georgia, 2014.

21. **Poster Spotlight Talk**, *Role of Substrate Unbinding in Michaelis–Menten Enzymatic Reactions*, The Eighth q-bio Conference, Santa Fe, New Mexico, 2014.

22. **Participation**, The Beg Rohu Summer School: Statistical Physics, Biology, Inference and Networks. Saint Pierre Quiberon, Brittany, France, 2015.

23. **Participation**, The 26th International conference on Statistical Physics (Statphys26), Lyon, France, 2016.

OUTREACH TALKS

1. **Outreach Talk**, *Finding a Postdoc Position*, As part of a career panel in an ACS On Campus Conference, Tel Aviv University, 2017.

2. **Outreach Talk**, *Sculpted by Self-Replication*, For students of the Adi Lautaman Interdisciplinary Program, Tel Aviv University, 2017.

3. **Outreach Talk**, *The Wonders of Randomness*, For students of the Handasaim Herzliya High School, Tel Aviv University, 2018.

4. **Outreach Talk**, *Sculpted by Self-Replication*, 5th Azrieli Fellows Forum, Council for Beautiful Israel, Tel Aviv, Israel, 2018.

5. **Outreach Talk**, *The Wonders of Randomness*, For 2nd and 3rd year students of the School of Chemistry at Tel Aviv University, Israel, 2018.

6. **Outreach Talk**, *To Weigh an Atom*, Open day, School of Chemistry, Tel Aviv University, Israel, 2019.

7. **Outreach Talk**, *Restart: The Science of Starting Anew*, For students of the Adi Lautaman Interdisciplinary Program, Tel Aviv University, 2021.

FUNDED GRANTS

2021 – 2026	ERC Starting Grant: *The Fluctuating Enzyme: From Catalysis to Vibrational Dynamics* (€1.5M).
2019 – 2023	Israel Science Foundation: New-Faculty Equipment Grant ($63K).
2019 – 2023	Israel Science Foundation: First-passage under restart ($294K).
2019 – 2021	Scheme for Promotion of Academic and Research Collaboration (SPARC) – A Government of India Initiative: *DNA Bubble Formation: From Physics to Biological Functions* ($100K) [in collaboration with groups from India and Israel].
2017 – 2020	The Azrieli Faculty Fellowship: *The Fluctuating Enzyme — In Search of Novel Phenomena & Universal Statistics* ($210K).
2013 – 2016	The James S. McDonnell Foundation Postdoctoral Fellowship Award in Studying Complex Systems ($200K).

AWARDS & FELLOWSHIPS

2017 – 2020	The Azrieli Faculty Fellowship.
2013 – 2016	The James S. McDonnell Foundation Postdoctoral Fellowship Award in Studying Complex Systems.
2012	Included in the Rector's List of Excellent Junior Lecturers in Tel Aviv University for the year 2012.
2012	Chosen in a competition among young scientists in Asia to participate in the 4th HOPE Meeting with Nobel Laureates.
2011 – 2012	Rector's Ph.D. Scholarship, School of Mathematical Sciences, Tel Aviv University.

2011	Yaakov Blecher Award for Excellent Ph.D. Students in Probability, Statistics and Operations Research, Tel Aviv University.
2011	Wolf Foundation Prize for Outstanding Ph.D. Students, Moshe Gilboa Scholarship.
2007 – 2011	Converging Technologies, Council for Higher Education in Israel, Ph.D. Scholarship.
2006 – 2011	Anonymous Donor Scholarship for Excellent Students within the Interdisciplinary Program for Outstanding Students, Tel Aviv University.
2009	Chosen in a competition among young scientists worldwide to participate in the 59th Lindau Nobel Laureate Meeting.
2009	Dean Scholarship for Excellent Ph.D. Students, Raymond and Beverly Sackler Faculty of Exact Sciences, Tel Aviv University.
2008	The Molecular Graphics and Modeling Society Award for Best Abstract at 3DSIG ISMB 2008.
2008	Excellent B.Sc. Students Award, School of Mathematical Sciences, Tel Aviv University.
2007	Wolf Foundation Prize for Outstanding M.Sc. Students, Thalheimer Scholarship.
2006	Salim and Rachel Banin Scholarship for M.Sc. Students.
2005	Tel Aviv University Rector's Award for Excellence and the Israeli Knesset Certificate for Excellent Students.
2003 – 2007	The Adi Lautman Interdisciplinary Program for Outstanding Students, Full Scholarship, Tel Aviv University.

LIST OF PUBLICATIONS

1. **S. Reuveni**, R. Granek and J. Klafter, *Proteins: Coexistence of Stability and Flexibility*, Phys. Rev. Lett. 100, 208101 (2008).
2. M. de Leeuw, **S. Reuveni**, J. Klafter and R. Granek, *Coexistence of Flexibility and Stability of Proteins: An Equation of State*, PLoS ONE 4(10) (2009).
3. **S. Reuveni**, R. Granek and J. Klafter, *Vibrational Shortcut to the Mean-First-Passage-Time Problem*, Phys. Rev. E 81, 040103(R) (2010).
4. **S. Reuveni**, R. Granek and J. Klafter, *Anomalies in the Vibrational Dynamics of Proteins Are a Consequence of Fractal Like Structure*, PNAS 107 (31), 13696 (2010).
5. **S. Reuveni**, R. Granek and J. Klafter, *General Mapping Between Random Walks and Thermal Vibrations in Elastic Networks: Fractal Networks as a Case Study*, Phys. Rev. E 82, 041132 (2010).

6. **S. Reuveni**, I. Meilijson, M. Kupiec, E. Ruppin and T. Tuller, *Genome-Scale Analysis of Translation Elongation with a Ribosome Flow Mode*, PLoS Computational Biology 7(9), e1002127 (2011).

7. **S. Reuveni**, I. Eliazar and U. Yechiali, *Asymmetric Inclusion Process*, Phys. Rev. E 84, 041101 (2011).

8. **S. Reuveni**, J. Klafter and R. Granek, *Dynamic Structure Factor of Vibrating Fractals*, Phys. Rev. Lett. 108, 068101 (2012).

9. **S. Reuveni**, J. Klafter and R. Granek, *Dynamic Structure Factor of Vibrating Fractals: Proteins as a Case Study*, Phys. Rev. E 85, 011906 (2012).

10. **S. Reuveni**, I. Eliazar and U. Yechiali, *Asymmetric Inclusion Process: A Showcase of Complexity*, Phys. Rev. Lett. 109, 020603 (2012).

11. **S. Reuveni**, I. Eliazar and U. Yechiali, *Limit Laws for the Asymmetric Inclusion Process*, Phys. Rev. E 86, 061133 (2012).

12. **S. Reuveni***, O. Hirschberg*, I. Eliazar and U. Yechiali, *Occupation Probabilities and Fluctuations in the Asymmetric Simple Inclusion Process*, Phys. Rev. E 89, 042109 (2014) (*equal contribution).

13. **S. Reuveni**, *Catalan's Trapezoids*, Probability in the Engineering and Informational Sciences, 28 (03), 353 (2014).

14. **S. Reuveni**, M. Urbakh and J. Klafter, *Role of Substrate Unbinding in Michaelis–Menten Enzymatic Reactions*, PNAS 111 (12), 4391 (2014).

15. T. Rotbart, **S. Reuveni*** and M. Urbakh, *Michaelis-Menten Reaction Scheme as a Unified Approach Towards the Optimal Restart Problem*, Phys. Rev. E 92, 060101(R) (2015) (*corresponding author).

16. **S. Reuveni**, *Optimal Stochastic Restart Renders Fluctuations in First Passage Times Universal*, Phys. Rev. Lett. 116, 170601 (2016).

17. A. Pal and **S. Reuveni**, *First Passage Under Restart*, Phys. Rev. Lett. 118, 030603 (2017).

18. **S. Reuveni**, Måns Ehrenberg and J. Paulsson, *Ribosomes Are Optimized for Autocatalytic Production*, Nature, 547 (7663), 293 (2017).

19. T. Rotbart, **S. Reuveni*** and M. Urbakh, *Single-Molecule Theory of Enzymatic Inhibition*, Nature Communications, 9, 779 (2018) (*corresponding author).

20. A. Pal, I. Eliazar and **S. Reuveni**, *First Passage Under Restart with Branching*, Phys. Rev. Lett. 122, 020602 (2019).

21. S. Ray, D. Mondal and **S. Reuveni**, *Péclet Number Governs Transition to Acceleratory Restart in Drift-Diffusion*, J. Phys. A. 52, 255002 (2019). [Appeared on cover]

22. A. Pal, R. Chatterjee, **S. Reuveni*** and A. Kundu, *Local Time of Diffusion with Stochastic Resetting*, J. Phys. A. 52, 264002 (2019) (*corresponding author). [Appeared on cover]

23. E. Borberg, M. Zverzhinetsky, A. Krivitsky, A. Kosloff, O. Heifler, G. Degabli, H. Peretz Soroka, R. Satchi-Fainaro, L. Burstein, **S. Reuveni**, H. Diamant, V. Krivitsky and F. Patolsky, *Light-Controlled Selective Collection-and-Release of Biomolecules by an On-Chip Nanostructured Device*, Nano Letters 19, 9, 5868 (2019).

24. I. Eliazar, R. Metzler and **S. Reuveni**, *Gumbel Central Limit Theorem for Max-Min and Min-Max*, Phys. Rev. E 100, 020104(R), (2019).

25. I. Eliazar, R. Metzler and **S. Reuveni**, *Poisson-Process Limit-Laws Yield Gumbel Max-Min and Min-Max*, Phys. Rev. E 100, 022129, (2019).

26. O. L. Bonomo, and **S. Reuveni**, *Occupancy Correlations in the Asymmetric Simple Inclusion Process*, Phys. Rev. E 100, 042109, (2019).

27. A. Pal, Ł. Kuśmierz and **S. Reuveni**, *Time-Dependent Density of Diffusion with Stochastic Resetting is Invariant to Return Speed*, Phys. Rev. E 100, 040101(R) (2019).

28. A. Pal, Ł. Kuśmierz and **S. Reuveni**, *Invariants of Motion with Stochastic Resetting and Space-Time Coupled Return*, New J. Phys. 21, 113024, (2019).

29. E. A. Libby, **S. Reuveni** and J. Dworkin, *Multisite phosphorylation drives phenotypic variation in (p)ppGpp synthetase-dependent antibiotic tolerance*, Nature Communications, 10, 5133, (2019).

30. Y. Scher, **S. Reuveni** and Y. Cohen, *Constant Gradient FEXSY: A Time-Efficient Method for Measuring Exchange*, Journal of Magnetic Resonance, 311, 106667, (2020).

31. S. Ray and **S. Reuveni**, *Diffusion with Resetting in a Logarithmic Potential*, J. Chem. Phys. 152, 234110, (2020).

32. S. Kostinski and **S. Reuveni**, *Ribosome Composition Maximizes Cellular Growth Rates in E. coli*, Phys. Rev. Lett. 122, 020602 (2020). [Editors' Suggestion, Featured in Physics]

33. O. Tal-Friedman, A. Pal, A. Sekhon, **S. Reuveni** and Y. Roichman, *Experimental Realization of Diffusion with Stochastic Resetting*, J. Phys. Chem. Lett. 11, 17, 7350 (2020).

34. I. Eliazar and **S. Reuveni**, *Mean-Performance of Sharp Restart I: Statistical Roadmap*, J. Phys. A: Math. Theor. 53, 405004 (2020).

35. A. Pal, Ł. Kuśmierz and **S. Reuveni**, *Search with Home Returns Provides Advantage Under High Uncertainty*, Phys. Rev. Research 2, 043174 (2020).

36. S. Kostinski and **S. Reuveni**, *Growth-Laws and Invariants from Ribosome Biogenesis in Lower Eukarya,* Phys. Rev. Research 3, 013020 (2021).

37. I. Eliazar and **S. Reuveni**, *Tail-Behavior Roadmap for Sharp Restart,* J. Phys. A: Math. Theor. 54 125001 (2021).

38. A. Miron and **S. Reuveni**, *Diffusion with Local Resetting and Exclusion*, Phys. Rev. Research 3, L012023, (2021).

39. A. Pal, **S. Reuveni** and Saar Rahav, *Thermodynamic Uncertainty Relation for Systems with Unidirectional Transitions*, Phys. Rev. Research 3 (1), 013273, (2021).

40. S. Ray and **S. Reuveni**, *Resetting Transition is Governed by an Interplay Between Thermal and Potential Energy*, J. Chem. Phys., 154(17), 171103, (2021).

41. Y. Scher and **S. Reuveni**, *A Unified Approach to Gated Reactions on Networks, Phys. Rev. Lett. 127, 018301, (2021).*

42. I. Eliazar and **S. Reuveni**, *Mean-performance of Sharp Restart II: Inequality Roadmap*. J. Phys. A: Math. Theor. 54, 355001, (2021).

43. A. Pal, **S. Reuveni** and S. Rahav, *Thermodynamic Uncertainty Relation for First-Passage Times on Markov Chains*. Phys. Rev. Research 3, L032034, (2021).

44. A. Pal, S. Kostinski and **S. Reuveni**, *The Inspection Paradox in Stochastic Resetting*. arXiv:2108.07018, (2021).

45. Y. Scher and **S. Reuveni**, *Gated Reactions in Discrete Time and Space.* arXiv:2109.05593, (2021).

PUBLICATIONS IN POPULAR SCIENCE JOURNALS

1. **S. Reuveni**, "*הטבלה המחזורית – עד 120?*" ("The periodic table – till 120?", in Hebrew), Galileo 139, (2010).

2. **S. Reuveni**, "*חוקי התנועה של מולקולות בתוך התא*" ("The laws that govern molecular motion inside the cell", in Hebrew), Galileo 143, (2010)

DISSERTATIONS

1. **S. Reuveni**, *Proteins: Unraveling Universality in a Realm of Specificity*, M.Sc. Thesis, School of Chemistry, Tel Aviv University, (2007).

2. **S. Reuveni**, *The Fractal-Like Nature of Proteins: Foundations, Applications and Ramifications*, Ph.D. Thesis, School of Chemistry, Tel Aviv University, (2013).

3. **S. Reuveni**, *Tandem Stochastic Systems: The Asymmetric Simple Inclusion Process*, Ph.D. Thesis, School of Mathematical Sciences, Tel Aviv University, (2014).