Curriculum Vitae

Evgeniy Boyko

PERSONAL DETAILS

E-mail:	evgboyko@technion.ac.il
ORCID iD:	https://orcid.org/0000-0002-9202-5154

ACADEMIC DEGREES

10/2014 – 06/2020:	 Ph.D. (direct track), GPA: 98.1/100 Faculty of Mechanical Engineering Technion – Israel Institute of Technology, Haifa, Israel Co-supervised by Professor Moran Bercovici and Professor Amir D. Gat Research topic: "Non-uniform electro-osmotic flow: From microscale flow patterning to fluid-structure interaction and instability."
03/2012 – 03/2015:	B.Sc., <i>summa cum laude</i> , GPA: 93.4 /100 Faculty of Mechanical Engineering Technion – Israel Institute of Technology, Haifa, Israel "Reamim – Research and Development" excellence program for undergraduate students

ACADEMIC APPOINTMENTS

December 18, 2022:	Assistant Professor Faculty of Mechanical Engineering Technion – Israel Institute of Technology, Haifa, Israel Leading the Technion Complex Fluids Research Group Advising graduate and undergraduate students, teaching graduate and undergraduate level courses
10/2021 – 12/2022:	Postdoctoral Research Fellow Schools of Mechanical and Chemical Engineering Purdue University, West Lafayette, IN, USA Advisers: Professor Ivan C. Christov and Professor Osman Basaran
10/2020 – 10/2021:	Postdoctoral Research Fellow Department of Mechanical and Aerospace Engineering Princeton University, Princeton, NJ, USA Adviser: Professor Howard A. Stone
06/2020 – 09/2020:	Visiting Fellow Microfluidic Technologies Laboratory Faculty of Mechanical Engineering Technion – Israel Institute of Technology, Haifa, Israel

PROFESSIONAL EXPERIENCE

10/2014 - 06/2020:Graduate Research Assistant
Microfluidic Technologies Laboratory; Fluids & Elasticity Research Group
Faculty of Mechanical Engineering
Technion - Israel Institute of Technology, Haifa, Israel

RESEARCH INTERESTS

- Theoretical research of fluid mechanics and transport phenomena
- Hydrodynamics of non-Newtonian fluids: flows of shear-thinning and viscoelastic fluids
- Flows of polymer solutions and melts: theory and simulations
- Interfacial phenomena and interfacial rheology
- Microfluidics, electrokinetics, electro-osmotic flows
- Fluid-structure interaction

TEACHING EXPERIENCE

03/2023 – present:		Faculty of Mechanical Engineering – Israel Institute of Technology, Israel Analytical Fluid Mechanics, graduate level, course redesigned. Spring '23 (in English)
10/2014 – 09/2020:	Lead Teac	hing Assistant, Faculty of Mechanical Engineering
	Technion -	 Israel Institute of Technology, Israel
	034013	Fluid Mechanics I, undergraduate level
		Fall '14, '16-'18, Spring '15-'20
	034033	Numerical Analysis, undergraduate level
		Fall '19
	035035	Fluid Mechanics II, undergraduate level
		Fall '15-'19
	036008	Compressible Flow, graduate level
		Fall '15-'16
	036086	Flow and transport in micro-devices, graduate level
		Fall '19
	Taught w	eekly frontal tutorials, held weekly office hours, wrote homework
	assignmer	nts and their solutions, wrote exams and their solutions, gave several
	guest lecti	ares, and served as an instructor for final projects.
	Participato 034055.	ed in developing the curriculum for the new course Fluid Mechanics 1M

PUBLIC PROFESSIONAL ACTIVITIES

Reviewer for archived journals

 Journal of Fluid Mechanics, Physical Review Fluids, Physical Review Letters, Physical Review Applied, Physical Review E, Journal of Non-Newtonian Fluid Mechanics, Soft Matter, European Journal of Mechanics - B/Fluids, Physics of Fluids, Acta Mechanica, Proceedings A, Mathematical Modelling of Natural Phenomena.

MEMBERSHIP IN PROFESSIONAL SOCIETIES

- American Physical Society, Division of Fluid Dynamics (APS DFD)
- European Mechanics Society (EuroMech)
- The Society of Rheology (SoR)

FELLOWSHIPS, AWARDS AND HONORS

2023 – present:	Alon Fellowship for the Integration of Outstanding Faculty
	https://che.org.il/en/scholarships-integration-outstanding-faculty/
2021 – 2022:	Lillian Gilbreth Postdoctoral Fellowship at Purdue Engineering
	https://engineering.purdue.edu/Engr/Research/GilbrethFellowships/awardees/AllAw
	ardees/2020
2020 – 2022:	Zuckerman Israeli Postdoctoral Scholarship
	https://zuckerman-scholars.org/scholars/dr-evgeniy-boyko/
2021:	Arie and Rebecca Shostakovsky Ph.D. Excellence Award
2020 – 2021:	Rothschild Postdoctoral Fellowship
	https://www.yadhanadiv.org.il/rothschild-fellows
2020 – 2022:	Blavatnik Postdoctoral Fellowship at University of Cambridge (declined)
2020:	Jacobs prize for best publication of the 2019 year from the Technion
2017 – 2020:	Adams Fellowship Program of the Israel Academy of Sciences and Humanities
	http://adams.academy.ac.il/fellow/evgeniy-boyko/?fromsearch
2015 – 2020:	Faculty's Excellence Scholarship (5x)
2015 – 2016:	Technion Graduate School Scholarship for Traveling Students
2015:	Dean's Graduate Studies Scholarship
2015:	B.Sc. graduation summa cum laude
2013 – 2015:	Technion President's List for academic achievements (4x)
2011:	Central Commander's Excellence Award in counterterrorism

MENTORING UNDERGRADUATE FINAL RESEARCH PROJECTS

- 2015 2016: Baheej Bathish, "Monte Carlo simulations of particle motion in three-dimensional electro-osmotic flow".
- 2017 2018: Israel Gabay, "Reciprocal theorem in fluid mechanics".

GRADUATE STUDENTS

* Primary adviser, unless otherwise mentioned

Current postdoctoral trainees

1.	Bimalendu Mahapatra	Ph.D., IIT, Kharagpur, India	2023 – present
----	---------------------	------------------------------	----------------

RESEARCH GRANTS

PERIOD	TITLE	SOURCE	AMOUNT	PI
2023-	Viscoelastic flows in complex	Israel Science	876K NIS	Evgeniy Boyko
2027	rigid and elastic channels:	Foundation (ISF),	(~\$ US 235K)	
	hydrodynamics and spatial	Research grant,		
	relaxation of velocity,	1942/23		
	pressure, and polymer stresses			
2023	Computational and	Israel Science	868K NIS	Evgeniy Boyko
	measurement system for	Foundation (ISF),	(~\$ US 232K)	
	studying flow phenomena	Research		
	involving complex and non-	equipment grant,		
	Newtonian fluids	2696/23		
2023 –	NSF-BSF: Microstructurally	United States -	\$US 165K	Evgeniy Boyko
2026	Informed Extensions of the	Israel Binational		Co-PI: Prof. Howard
	Oldroyd-B/FENE-P Equation to	Science		A. Stone, Princeton
	Explain the Mismatch of	Foundation, (NSF-		University, who
	Experiments and Simulations	BSF program).		receives funding
	for Channel Flows	Research grant,		from NSF.
		2022688		

PUBLICATIONS

Theses

Boyko E., Ph.D. dissertation entitled "Non-uniform electro-osmotic flow: From microscale flow patterning to fluid-structure interaction and instability," Faculty of Mechanical Engineering, Technion, Israel, 2020. Advisers: Prof. Moran Bercovici and Associate Prof. Amir D. Gat.

Refereed papers in professional journals

* Equal contribution

- J1. **Boyko E.**^{*}, Rubin S.^{*}, Gat A. D., and Bercovici M., (2015), "Flow patterning in Hele-Shaw configurations using non-uniform electro-osmotic slip", *Phys. Fluids* **27**, 102001.
- J2. **Boyko E.**, Bercovici M., and Gat A. D., (2016), "Flow of power-law liquids in a Hele-Shaw cell driven by non-uniform electro-osmotic slip in the case of strong depletion", <u>J. Fluid Mech. **807**</u>, 235-257.
- J3. Boyko E., Bercovici M., and Gat A. D., (2017), "Viscous-elastic dynamics of power-law fluids within an elastic cylinder", *Phys. Rev. Fluids* **2**, 073301.

- J4. Paratore F., **Boyko E.**, Kaigala G. V., and Bercovici M., (2019), "Electroosmotic Flow Dipole: Experimental Observation and Flow Field Patterning", <u>*Phys. Rev. Lett.* **122**, 224502</u>.
- J5. **Boyko E.**, Eshel R., Khaled G., Gat A. D., and Bercovici M., (2019), "Elastohydrodynamics of a prestretched finite elastic sheet lubricated by a thin viscous film with application to microfluidic soft actuators", <u>J. Fluid Mech. 862</u>, 732-752.
- J6. **Boyko E.***, Eshel R.*, Gat A. D., and Bercovici M., (2020), "Non-uniform Electro-osmotic Flow Drives Fluid-Structure Instability", *Phys. Rev. Lett.* **124**, 024501.
 - Awarded the Jacobs prize for best publication of the 2019 year from the Technion.
- J7. Arshavsky Graham S., **Boyko E.**, Salama R., and Segal E., (2020), "Mass Transfer Limitations of Porous Silicon-Based Biosensors for Protein Detection", <u>ACS Sensors 5</u>, 3058-3069.
- J8. Boyko E., Ilssar D., Bercovici M., and Gat A. D., (2020), "Interfacial instability of thin films in soft microfluidic configurations actuated by electro-osmotic flow", *Phys. Rev. Fluids* 5, 104201.
- J9. **Boyko E.***, Bacheva V.*, Eigenbrod M.*, Paratore F., Gat A. D., Hardt, S., and Bercovici M., (2021), "Microscale Hydrodynamic Cloaking and Shielding via Electro-Osmosis", <u>*Phys. Rev. Lett.* 126</u>, <u>184502</u>.
 - Selected as Editors' suggestion.
 - <u>Featured in Physics</u>.
- J10. Gabay I., Paratore F., Boyko E., Ramos A., Gat A. D., and Bercovici M., (2021), "Shaping liquid films by dielectrophoresis", <u>Flow 1, E13</u>.
- J11. Boyko E. and Stone H. A., (2021), "Flow rate-pressure drop relation for shear-thinning fluids in narrow channels: approximate solutions and comparison with experiments", <u>J. Fluid Mech. (Rapids)</u> <u>923, R5</u>.
- J12. Boyko E. and Stone H. A., (2021), "Reciprocal theorem for calculating the flow rate–pressure drop relation for complex fluids in narrow geometries", *Phys. Rev. Fluids (Letter)* 6, L081301.
- J13. Boyko E. and Stone H. A., (2022), "Pressure-driven flow of the viscoelastic Oldroyd-B fluid in narrow non-uniform geometries: analytical results and comparison with simulations", <u>J. Fluid Mech. 936</u>, <u>A23</u>.
- J14. Boyko E., Stone H. A., and Christov I. C., (2022), "Flow rate–pressure drop relation for deformable channels via fluidic and elastic reciprocal theorems", *Phys. Rev. Fluids (Letter)* **7**, L092201.
- J15. Boyko E. and Christov I. C., (2023), "Non-Newtonian fluid–structure interaction: flow of a viscoelastic Oldroyd-B fluid in a deformable channel", *J. Non-Newtonian Fluid Mech.* **313**, 104990.
- J16. Stone H. A., Shelley M. J., and **Boyko E.**, (2023), "A note about convected time derivatives for flows of complex fluids", *Soft Matter* **19**, 5353-5359.

Submitted papers

- J17. Louis M. M., **Boyko E.**, and Stone H. A., (2023), "The effect of a temperature-dependent viscosity on pressure drop in axisymmetric channel flows".
- J18. Chun S.*, **Boyko E.***, Christov I. C., and Feng J., (2023), "Flow rate–pressure drop relations for shearthinning fluids in deformable configurations: theory and experiments".

- J19. Khamaysi I., Firman R., Martin P., Vasilyev G., **Boyko E.**, and Zussman, E., (2023), "A mechanical perspective on increasing brush cytology yield".
- J20. Hinch E. J., **Boyko E.**, and Stone H. A., (2023), "Fast flow of an Oldroyd-B fluid through a narrow slowly varying contraction".

Refereed papers in conference proceedings

J21. Paratore F., **Boyko E.**, Gat A. D., Kaigala G. V., and Bercovici M., (2018), "Toward microscale flow control using non-uniform electro-osmotic flow", <u>Microfluidics, BioMEMS, and Medical</u> <u>Microsystems XVI, 104910P</u>.

Papers in preparation

- J22. Boyko E., Hinch E. J., and Stone H. A., (2023), "Flow of an Oldroyd-B fluid in a slowly varying contraction: theoretical results for arbitrary values of Deborah number in the ultra-dilute limit".
- J23. Boyko E., (2023), "Interplay between complex fluid rheology and wall compliance in the hydrodynamic resistance of deformable configurations via reciprocal theorem".

CONFERENCES

Presenters in conferences are in **bold**.

Invited lectures at conferences

- IL1. Boyko E., Gat A. D., and Bercovici M., "*Microscale deformations driven by various actuation mechanisms*", Mini-symposium in memoriam of Antonio Castellanos Mata: Electro-hydrodynamics, gas discharges, granular materials, St. Petersburg, Jun, 2017.
- IL2. Boyko E. and Stone H. A., "Dumbbell models for polymer flow in confined configurations", International Workshop of the Princeton Center for Theoretical Science (PCTS) on Viscoelastic Flow Instabilities and Elastic Turbulence, Princeton, Jan, 2021.
- IL3. Boyko E. and Stone H. A., "Flow rate-pressure drop relation for viscoelastic fluids in narrow nonuniform geometries", Flow Assurance Conference, Purdue Process Safety & Assurance Center (P2SAC) 2022 Spring Conferences, West Lafayette, May, 2022.

Invited lectures at seminars and academic symposia

- IL4. **Boyko E.**, *"Fluid–structure instability actuated by non-uniform electro-osmotic flow"*, Department of Mechanical Engineering, Ben-Gurion University, Israel, Feb, 2021.
- IL5. Boyko E., "Hydrodynamics of Complex Microscale Flows: From Electro-osmotic to Non-Newtonian Flows in Rigid and Soft Configurations", Special Fluid Mechanics Seminar, Purdue University, USA, Aug, 2021.
- IL6. **Boyko E.** and Stone H. A., *"Flow rate-pressure drop relation for complex fluids in narrow geometries"*, SMatCH Seminar, Princeton, Sep, 2021.
- IL7. Boyko E., "Flow rate-pressure drop relation for non-Newtonian fluids in narrow geometries", Faculty of Mechanical Engineering, Technion – Israel Institute of Technology, Israel, Dec, 2021.

- IL8. **Boyko E.**, *"Flow rate–pressure drop relation for non-Newtonian fluids in narrow geometries"*, Max Planck Institute for the Physics of Complex Systems, Germany, Feb, 2023.
- IL9. **Boyko E.**, *"Viscoelastic flows in slowly varying geometries"*, Department of Mechanical Engineering, Tel-Aviv University, Israel, April, 2023.
- IL10. Boyko E., "Viscoelastic flows in slowly varying geometries", The Wolfson Department of Chemical Engineering, Technion Israel Institute of Technology, Israel, May, 2023.

Contributed talks and posters

- C1. **Boyko E.**, Rubin S., Gat A. D., and Bercovici M., *"2D Flow Patterning using Non-uniform Electroosmotic flow"*, The 33rd Israel Conference of Mechanical Engineering ICME, Tel Aviv, Mar, 2015. (oral presentation)
- Rubin S., Boyko E., Gat A., and Bercovici M., *"Elastic Surface Deformations Driven by Non-Uniform Electroosmotic Flow in a Hele-Shaw cell,"* Fluid & Elasticity 2015 conference, Biarritz, France, Jun, 2015. (oral presentation)
- C3. **Rubin S.**, Boyko E., Gat A., and Bercovici M., "Electroosmotic Flow in Hele-Shaw Configurations with Non- Uniform Surface Charge", Gordon Research Conference on Physics and Chemistry of Microfluidics, Mount Snow, Vermont, Jun, 2015. (oral presentation)
- C4. **Boyko E.**, Rubin S., Gat A. D., and Bercovici M., *"2D Flow patterning in Hele-Shaw configurations using Non-Uniform Electroosmotic Slip"*, 68th Annual Meeting of the American Physical Society Division of Fluid Dynamics, Boston, Massachusetts, Nov, 2015. (oral presentation)
- C5. **Boyko E.**, Bercovici M., and Gat A. D., *"Flow of power-law liquids in a Hele-Shaw cell driven by non-uniform electro-osmotic slip in the case of strong depletion"*, 69th Annual Meeting of the American Physical Society Division of Fluid Dynamics, Portland, Oregon, Nov, 2016. (oral presentation)
- C6. Boyko E., Bercovici M., and **Gat A. D.**, *"Viscous-elastic dynamics of power-law fluids within an elastic cylinder"*, 69th Annual Meeting of the American Physical Society Division of Fluid Dynamics, Portland, Oregon, Nov, 2016. (oral presentation)
- C7. Boyko E., Gat A. D., and **Bercovici M.**, "Deformations of a pre-stretched elastic membrane driven by non-uniform electro-osmotic flow", 69th Annual Meeting of the American Physical Society Division of Fluid Dynamics, Portland, Oregon, Nov, 2016. (oral presentation)
- C8. Boyko E., Rubin S., Eshel R., Tulchinsky A., Gat A. D., and **Bercovici M.**, *"Flow and deformations patterning with non-uniform electroosmotic slip"*, The Batsheva de Rothschild Seminar: Physics of Microfluidics, Sde-Boker, Jan, 2017. (oral presentation)
- C9. **Boyko E.**, Gat A. D., and Bercovici M., "*Deformations of a pre-stretched and lubricated finite elastic sheet*", Flow17 conference, Paris, Jul, 2017. (poster)
- C10. Eshel R., Boyko E., Gommed K., and Bercovici M., *"Experimental study of elastic deformation driven by electro-osmotic flow"*, Flow17 conference, Paris, Jul, 2017. (poster)
- C11. **Boyko E.**, Gat A. D., and Bercovici M., "*Deformations of a pre-stretched and lubricated finite elastic membrane driven by non-uniform external forcing*", 70th Annual Meeting of the American Physical Society Division of Fluid Dynamics, Denver, Colorado, Nov, 2017. (oral presentation)

- C12. Boyko E., Gat A. D., and Bercovici M., *"Elastic deformation instability in soft microfluidic configurations induced by non-uniform electro-osmotic flow"*, 9th Conference of the International Marangoni Association (IMA9), Guilin, Aug, 2018. (oral presentation)
- C13. Boyko E., Gat A. D., and Bercovici M., "Elastic deformation instability in soft microfluidic configurations induced by non-uniform electro-osmotic flow", 12nd European Fluid Mechanics Conference (EFMC12), Vienna, Sep, 2018. (oral presentation)
- C14. **Boyko E.**, Gat A. D., and Bercovici M., *"Elastic deformation instability in soft microfluidic configurations induced by non-uniform electro-osmotic flow"*, 71st Annual Meeting of the American Physical Society Division of Fluid Dynamics, Atlanta, Georgia, Nov, 2018. (oral presentation)
- C15. **Boyko E., Eshel R.**, Gat A. D., and Bercovici M., *"Non-uniform electro-osmotic flow drives elastic deformation instability"*, 13th International Symposium on Electrokinetics (ELKIN), Boston, Massachusetts, Jun, 2019. (poster)
- C16. **Boyko E.**, Bercovici M., and Gat A. D., *"Elastic instability in soft microfluidic configurations driven by non-uniform electro-osmotic flow"*, 13th International Symposium on Electrokinetics (ELKIN), Boston, Massachusetts, Jun, 2019. (poster)
- C17. Boyko E., Eshel R., Gat A. D., and Bercovici M., "Elastic deformation instability in soft microfluidic configurations induced by non-uniform electro-osmotic flow", Fluid & Elasticity 2019 conference, Malaga, Jun, 2019. (oral presentation)
- C18. **Boyko E.**, Bercovici M., and Gat A. D., *"Elastic instability in soft microfluidic configurations driven by non-uniform electro-osmotic flow"*, Harrington Symposium: Physics of Microfluidics, Austin, Texas, Jun, 2019. (poster)
- C19. Boyko E., Eshel R., Gat A. D., and Bercovici M., "Non-uniform electro-osmotic flow drives fluidstructure instability", Harrington Symposium: Physics of Microfluidics, Austin, Texas, Jun, 2019. (poster)
- C20. Boyko E., Eshel R., Gat A. D., and Bercovici M., "Non-uniform electro-osmotic flow drives fluidstructure instability", The Israel Society for Theoretical and Applied Mechanics Symposium – ISTAM, Haifa, Dec, 2019. (oral presentation)
- C21. **Boyko E.**, Ilssar D., Bercovici M., and Gat A. D., *"Electro-osmotic-driven fluid–structure instability in soft microfluidic configurations with application to soft actuators"*, International Workshop on Micro-swimmers and Soft Robotics, Haifa, Feb, 2020. (poster)
- C22. Boyko E. and Stone H. A., "Flow rate-pressure drop relation for complex fluids in narrow geometries", The Society of Rheology 92nd Annual Meeting, Bangor, Maine, Oct, 2021. (oral presentation)
- C23. **Boyko E.** and Stone H. A., *"Flow rate-pressure drop relation for viscoelastic fluids in narrow geometries"*, 74th Annual Meeting of the American Physical Society Division of Fluid Dynamics, Phoenix, Arizona, Nov, 2021. (oral presentation)
- C24. Boyko E. and Stone H. A., "Flow rate-pressure drop relation for viscoelastic fluids in narrow and confined non-uniform geometries", American Physical Society March Meeting 2022, Chicago, Illinois, March, 2022. (oral presentation)

- C25. **Boyko E.**, Stone H. A., and Christov I. C., "Flow rate–pressure drop relation for deformable shallow channels via fluidic and elastic reciprocal theorems", 14th European Fluid Mechanics Conference (EFMC14), Athens, Sep, 2022. (oral presentation)
- C26. **Boyko E.**, Christov I. C., and Basaran O. A., "Retraction of a highly viscous shear-thinning liquid sheet", 75th Annual Meeting of the American Physical Society Division of Fluid Dynamics, Indianapolis, Indiana, Nov, 2022. (oral presentation)
- C27. Christov I. C., Boyko E., and Stone H. A., "Joint use of fluidic and elastic reciprocal theorems to find the flow rate–pressure drop relation for deformable microchannels", 75th Annual Meeting of the American Physical Society Division of Fluid Dynamics, Indianapolis, Indiana, Nov, 2022. (oral presentation)
- C28. Louis M. M., Boyko E., and Stone H. A., "The effect of temperature-dependent viscosity on the pressure drop in narrow channel flows", 75th Annual Meeting of the American Physical Society Division of Fluid Dynamics, Indianapolis, Indiana, Nov, 2022. (oral presentation)
- C29. Hinch E. J., Boyko E., and Stone H. A., "Fast flow of an Oldroyd-B fluid through a slowly varying contraction, expansion or constriction in a channel", XIXth International Congress on Rheology (ICR2023), Athens, August, 2023. (oral presentation)
- C30. Boyko E., Hinch E. J., and Stone H. A., "Flow of an Oldroyd-B fluid in a slowly varying contraction: theoretical results for arbitrary values of Deborah number in the ultra-dilute limit", XIXth International Congress on Rheology (ICR2023), Athens, August, 2023. (oral presentation)
- C31. **Chun S.**, Boyko E., Christov I. C., and Feng J., "Comparison between theory and experiments for the flow rate-pressure drop relation for shear-thinning fluids in deformable configuration", 76th Annual Meeting of the American Physical Society Division of Fluid Dynamics, Washington, D. C., Nov, 2023. (accepted for oral presentation)
- C32. Pande S. D., Boyko E., and Christov I. C., "The Lorentz reciprocal theorem applied to oscillatory flows in rigid and deformable channels", 76th Annual Meeting of the American Physical Society Division of Fluid Dynamics, Washington, D. C., Nov, 2023. (accepted for oral presentation)
- C33. Louis M. M., Boyko E., and Stone H. A., "The effect of a temperature-dependent viscosity on pressure drop in narrow, converging channel flows", 76th Annual Meeting of the American Physical Society Division of Fluid Dynamics, Washington, D. C., Nov, 2023. (accepted for oral presentation)
- C34. **Ruangkriengsin T.**, Boyko E., and Stone H. A., "Quasi-steady sedimentation of a sphere in an Oldroyd-B fluid", 76th Annual Meeting of the American Physical Society Division of Fluid Dynamics, Washington, D. C., Nov, 2023. (accepted for oral presentation)
- C35. **Boyko E.**, Hinch E. J., and Stone H. A., "Flow of an Oldroyd-B fluid in a slowly varying contraction in the ultra-dilute limit", 76th Annual Meeting of the American Physical Society Division of Fluid Dynamics, Washington, D. C., Nov, 2023. (accepted for oral presentation)

Participation in organizing conferences

• Contributed to all aspects of the organization of the Batsheva de Rothschild Seminar on Physics of Microfluidics, Jan 3-8 2017, Sde-Boker, Israel. 60 Participants, including 20 international PIs, 20 Israeli PIs, and 20 graduate students.

- Contributed to most aspects of the organization of the Harrington Symposium of Physics of Microfluidics, Jun 9-11 2019, Austin, Texas, USA. 40 Participants, including 20 PIs and 20 graduate students.
- Co-organizer (with Prof. I. C. Christov) of a focus session entitled "Microscale non-Newtonian flows: Confinement, Particles, Compliance, Instabilities and Beyond" at the American Physical Society March Meeting 2022, March 14-18 2022, Chicago, USA.
- Organizing committee (with Prof. A. D. Gat, Prof. A. Lesman, and Prof. R. Segev) of the 71st Symposium of the Israel Society for Theoretical and Applied Mechanics (ISTAM), December 27 2022, Technion, Haifa, Israel.