

**Igal Gluzman**

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**CONTACT**

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**ACADEMIC DEGREES**

- **Ph.D.** in Aerospace Engineering, Technion – Israel Institute of Technology, Israel, **2017**.
- **M.Sc.** (*Summa Cum Laude*) in Mechanical Engineering, Ben-Gurion University, Israel, **2013**.
- **B.Sc.** (*Cum Laude*) in Mechanical Engineering, Ben-Gurion University, Israel, **2011**.

**ACADEMIC APPOINTMENTS**

Jul. 2022 – present	Assistant Professor, Faculty of Aerospace Engineering, Technion.
Sept. 2020 – Jun. 2022	Postdoctoral Research Associate, Department of Aerospace and Mechanical Engineering, University of Notre Dame, IN, USA.
Jan. 2018 – Aug. 2020	Postdoctoral Fellow, Department of Mechanical Engineering, Johns Hopkins University, MD, USA.
Oct. 2017 – Jan. 2018	Research Associate, Faculty of Aerospace Engineering, Technion, Israel.

**RESEARCH INTERESTS**

Experimental and theoretical fluid mechanics that combines interdisciplinary approaches from dynamical systems, signal processing, computer vision tools, and control theory. Current focus: transitional and turbulent boundary layers, cavitation and bubble dynamics.

**TEACHING EXPERIENCE**

- Introduced and developed the course: Cavitation and Bubble Dynamics (joint level). Faculty of Aerospace Engineering, Technion. Approved on March 3, 2024.
- Lecturer (in charge) in the Faculty of Aerospace Engineering, Technion. Courses:
  1. Cavitation and Bubble Dynamics (joint level): **Spring 2025, Spring 2026**
  2. Selected Topics in Fluid Dynamics 1 (joint level): **Spring 2023**
  3. Viscous Flow and Heat Transfer (undergraduate level): **Winter 2024, Winter 2025**
  4. Seminar in Aerodynamics (Undergraduate level): **Spring 2024, Winter 2025, Winter 2026, Spring 2026 (scheduled)**
  5. Design Project 78 (Undergraduate level): **Winter 2024, Spring 2024, Winter 2026 (scheduled), Spring 2026 (scheduled)**

6. Research Project 1 (undergraduate level): **Spring 2023** (4 completed projects); **Winter 2025** (1 completed project).
  7. Research Project 2 (Undergraduate level): **Winter 2024** (2 completed projects). **Spring 2025** (1 ongoing project)
  8. Experimental Project (Undergraduate level): **Winter 2025** (1 completed project).
- Guest lecturer in Experimental Methods in Aerodynamics (undergraduate level): **Winter 2024, Winter 2025**.
  - Guest lecturer in Exposure to Research in Aerospace Engineering (undergraduate level): **Spring 2025**.
  - Teaching Assistant in Faculty of Aerospace Engineering, Technion (**2013-2017**). Courses:
    - Viscous Flow and Heat Transfer (undergraduate level).
    - Combustion Processes (joint level).
    - Experimental Methods in Aerospace Engineering (undergraduate level).
  - Instructor in The Harry and Lou Stern Family Science and Technology Youth Center, Technion (**2014-2015**).
  - Supervisor in SciTech - International Summer Science Camp hosted by The Harry and Lou Stern Family Science and Technology Youth Center, Technion (**Summer 2014**).
  - Teaching Assistant in the Department of Mechanical Engineering, Ben-Gurion University (**2011-2013**). Courses:
    - Statistical Methods for Engineers (Undergraduate level)
    - Mechanical Engineering - Laboratory 2 (undergraduate level)
    - Introduction to Mechanical Engineering (undergraduate level)

## **DEPARTMENTAL ACTIVITIES**

- Oct. 2022-Dec. 2024, Faculty Council Secretary, Aerospace Engineering, Technion.
- 2023, Selection committee for awards: Shternberg, Rubin and fon-Wizel, Seginer
- 2023, Awards committee of the AE Graduate Studies Research Day
- 2024, Involvement in integration of Nashnon program—exposing high school students to academic research.
- 2024, Review committee of Preliminary Design Review (PDR) presentations of Design Projects
- 2024, Review committee of Final Design Review (FDR) presentations of Design Projects
- 2025, Awards committee of the AE Graduate Studies Research Day
- 2025, Review committee of Final Design Review (FDR) presentations of Design Projects

## **PUBLIC PROFESSIONAL ACTIVITIES**

- Judge committee of "Future Solvers"—the closing event of Unistream and the Nachshon program, 4/4/2024.

## **Conference and Workshop Activities**

- **Session chair** at the 74th APS DFD, Nov. 21-23, 2021, Session Q23: Flow Control II.
- **Session chair** at the AIAA SciTech, Jan. 3-7, 2022, Session FD-35: Instability and Transition III.
- **Session chair** Session chair at the 62nd Israel Annual Conference on Aerospace Sciences (IACAS), March. 15, 2023, Session WeL2T4: Aerodynamics II.
- **Session chair** at the 62nd Israel Annual Conference on Aerospace Sciences (IACAS), March 15, 2023, Session ThP15: Keynote Speakers.
- **Session co-chair** at the 63rd Israel Annual Conference on Aerospace Sciences (IACAS), May 9, 2024, Session ThL2T5: Hydrodynamics and Aeroacoustics

- **Session co-chair** at the 63rd Israel Annual Conference on Aerospace Sciences (IACAS), March 20, 2025, Session ThL2T2: Flow Stability and Control II

### Journal reviewer

- Experiments in Fluids: (two rounds: June 2025, July 2025).
- Physics of Fluids (PoF): 2023 (two rounds: Dec 2022, Jan 2023); 2023 (July 2023)
- International Journal of Multiphase Flow: 2023 (two rounds: March 2023, June 2023)

### Conference reviewer

- 57th Israel Annual Conference on Aerospace Sciences, 2017.

### MEMBERSHIP IN PROFESSIONAL SOCIETIES

- American Physical Society (APS) membership (2016-present).
- American Institute of Aeronautics and Astronautics (AIAA) membership (2018, 2022, 2024).

### FELLOWSHIPS, AWARDS, AND HONORS

- **2017** Aerospace Faculty Research Day, Poster Award, Technion–Israel Institute of Technology.
- **2016** Irwin and Joan Jacobs Scholarship Award for Excellence in Graduate Studies, Technion – Israel Institute of Technology, Graduate School.
- **2013** M.Sc., Summa Cum Laude, Mechanical Engineering, Ben-Gurion University of the Negev.
- **2011** B.Sc., Cum Laude, Mechanical Engineering, Ben-Gurion University of the Negev.

### PUBLICATIONS

#### Theses

1. Gluzman, I., Experimental Study of Temperature Fluctuations in Forced Stably Stratified Turbulent Flows, *M.Sc. Thesis*, Ben-Gurion University of the Negev, 2013.  
Thesis Advisors: Tov Elperin, Alexander Eidelman.
2. Gluzman, I., Disturbance Identification in Boundary Layer Flow via Blind Source Separation, *Ph.D. Thesis*, Technion – Israel Institute of Technology, 2017.  
Thesis Advisors: Jacob Cohen, Yaakov Oshman.

### Refereed papers in professional journals

Graduate students are denoted by (\*).

#### Published papers

1. §Eidelman, A., Elperin, T., **Gluzman, I.\***, Kleeorin, N., and Rogachevskii, I., Experimental Study of Temperature Fluctuations in Forced Stably Stratified Turbulent Flows. *Phys. Fluids* 25, 015111 (2013). (§**Authors are ordered alphabetically.**)
2. §Eidelman, A., Elperin, T., **Gluzman, I.\***, Golbraikh, E., Helicity of Mean and Turbulent Flow with Coherent Structures in Rayleigh-Bénard Convective Cell, *Phys. Fluids (1994-present)*, 26, 065103 (2014). (§**Authors are ordered alphabetically.**)
3. **Gluzman I.\***, Cohen J., Oshman Y., Statistical Calibration via Gaussianization in Hot-Wire Anemometry. *Exp. Fluids* 58.3: 15, (2017).

4. **Gluzman I.**, Oshman Y., Cohen J., Detection and Isolation of Tollmien-Schlichting Waves in Shear Flows Using Blind Source Separation, *Mech. Syst. Signal Process.*, 136, 106485 (2020).
5. **Gluzman I.** & Gayme F. D., Input-output framework for actuated boundary layers, *Phys. Rev. Fluids*, 6 (5), art. no. 053901 (2021).
6. **Gluzman I.**, Cohen J., Oshman Y., Blind disturbance separation and identification in a transitional boundary layer using minimal sensing, *J. Fluid Mech.*, 927,A4 (2021).
7. **Gluzman, I.** & Thomas, F. O., Characterization of bubble dynamics in the nozzle flow of aviation fuels via computer vision tools., *Int. J. Multiph. Flow* (2022): 104133.
8. **Gluzman, I.**, Gray P.\*, Mejia K., Corke T. C., Thomas F. O., A simplified photogrammetry procedure in oil-film interferometry for accurate skin friction measurement over a Gaussian bump *Exp. Fluids*, 63.7 (2022): 1-14.
9. Liu C. \*, **Gluzman, I.**, Lozier M. \*, Midya S. \*, Gordeyev S., Thomas F. O., Gayme F. D., Spatial Input–Output Analysis of Actuated Turbulent Boundary Layers, *AIAA J.*, 1-15 (2022).
10. **Gluzman, I.** & Thomas, F. O., Image-based characterization of the bubbly shock wave generation and evolution in aviation fuel cavitation, *Phys. Rev. Fluids*, 7, 084305 (2022).
11. **Gluzman, I.**, Anthony Pelster\*, Michael Waldrop\*, & Thomas, F. O., On cavitation in the radial flow of a thin lubricating film between two overlying disks, *Phys. Fluids*, 35, 023302 (2023).
12. D. J. Simmons, F. O. Thomas, T.C. Corke and **I. Gluzman**, Experimental Characterization and Similarity Scaling of Smooth Body Flow Separation and Reattachment on a Two-Dimensional Ramp Geometry. *J. Fluid Mech.* 1000 (2024): A12.
13. **Gluzman, I.**, Gray P., Corke T. C., Thomas F. O., A simplified photogrammetry procedure for quantitative on-and-off surface flow topology studies over 3D surfaces: application to a Gaussian bump geometry, *Exp. Fluids*. 66, 67 (2025).
14. Frank-Shafir, O. \*, **Gluzman, I.**, Choosing Between Active and Passive Flow Control via Input-Output Analysis: Application to Couette Flow. *IEEE Control Syst. Lett.* (2025).

## Refereed papers in conference proceedings

Graduate students are denoted by (\*). The presenter is underlined:

1. **Gluzman, I.\***, Cohen, J., Oshman, Y., Disturbance Source Identification for Flow Control: Problem Formulation for Infinitesimal Disturbances, *56th Israel Annual Conference on Aerospace Sciences*, Tel-Aviv, Israel, March 9–10, 2016.
2. **Gluzman, I.\***, Cohen, J., Oshman, Y., Statistical Calibration via Gaussianization in Hot-Wire Anemometry, *56th Israel Annual Conference on Aerospace Sciences*, Tel-Aviv, Israel, March 9–10, 2016.
3. **Gluzman, I.\***, Cohen, J., Oshman, Y., Identifying Disturbance Sources in Shear Flows Using the Degenerate Unmixing Estimation Technique, *57th Israel Annual Conference on Aerospace Sciences, Tel-Aviv, Israel*, March 15–16, 2017.
4. **Gluzman, I.**, Oshman, Y., Cohen, J., Estimation of Disturbance Propagation Velocity in Transitional Shear Flow, *58th Israel Annual Conference on Aerospace Sciences, Tel-Aviv, Israel*, March 14–15, 2018.
5. **Gluzman, I.**, Oshman, Y., Cohen, J., Identification of Disturbances and their Propagation Velocity in Transitional Boundary Layer, *2018 Flow Control Conference, AIAA AVIATION Forum (AIAA 2018-3694)*, Atlanta, Georgia, USA, June 25–29, 2018.
6. Liu C.\*, **Gluzman, I.**, Lozier M.\*, Midya S.\*, Gordeyev S., Thomas F. O., Gayme F. D., Spatial input-output analysis of large-scale structures in actuated turbulent boundary layers, *2021 AIAA AVIATION Forum*, Virtual Event, 2–6 August 2021.
7. Gray P.\*, **Gluzman, I.**, Thomas F. O., Corke T. C., Matthew L., Mejia K., A New Validation Experiment for Smooth-Body Separation, *2021 AIAA AVIATION Forum*, Virtual Event, 2–6 August 2021.
8. Gray P.\*, **Gluzman, I.**, Thomas F. O., Corke T. C., Mejia K., Experimental Characterization

of Smooth Body Flow Separation Over Wall-Mounted Gaussian Bump, *2022 AIAA SciTech Forum*, San Diego, CA & Online, 3–7 Jan 2022.

9. Gray P.\*, **Gluzman, I.**, Thomas F. O., Corke T. C., Matthew L., Mejia K., Benchmark Characterization of Separated Flow Over Smooth Gaussian Bump, *2022 AIAA AVIATION Forum*, Chicago, IL, 27 June–1 July 2022.
10. Gray P.\*, Matthew L., Thomas F. O., Corke T. C., **Gluzman, I.**, Straccia J., Experimental and Computational Evaluation of Smooth-Body Separated Flow over Boeing Bump, *2023 AIAA AVIATION Forum*, San Diego, CA, 12–16 June 2023.
11. Frank-Shafir O.\*, **Gluzman, I.**, Effect of linear and nonlinear mechanisms on flow structures in Couette flow, *In 2024 AIAA Regional Student Conferences*, Melbourne, Australia & Online, 5–26 Nov 2024.
12. Frank-Shafir O.\*, **Gluzman, I.**, Input-output approach to study energy pathways in transitional boundary layer, focusing on nonlinear response to actuation, *2025 AIAA SciTech Forum*, Orlando, Florida, 6–10 Jan 2025.
13. Frank-Shafir O.\*, **Gluzman, I.**, Choosing between active and passive flow control via input-output analysis: application to Couette flow, *64th IEEE Conference on Decision and Control (CDC)*, Rio de Janeiro, Brazil, 9–12 December 2025. (Accepted. Coincides with the final Control Syst. Lett. paper)
14. Salunke, S.\*, **Gluzman, I.**, Gap effect on cavitation cloud collapse in radial flow between two overlying disks, *2026 AIAA SciTech Forum*, Orlando, Florida, 12–16 Jan 2026. (Extended abstract submitted)
15. Zur, E.\*, **Gluzman, I.**, Bubbly shock waves characterization in aerated cavitating flows in water and dodecane via computer vision tools, Sendai, Japan, Nov. 10–13, 2025. (Submitted)

## Research reports and other publications

Students denoted by (\*).

1. Gray P.\*, Matthew L., Thomas F. O., Corke T. C., **Gluzman, I.**, Straccia J., Turbulence Model Validation Through Joint Experimental Computational studies of separated flow over three-dimensional tapered bump, *Final Report submitted to Boeing*, publisher NASA, 24 July 2023.

## CONFERENCES

### Plenary, keynote or invited talks

1. **Gluzman, I.**, A simplified photogrammetry procedure in oil-film interferometry for accurate skin-friction measurement over arbitrary geometries, Experiments in Fluids Seminar Series, hosted by Experiments in Fluids, Springer Nature, Virtual Event, October 11, 2022. ([Link](#))
2. **Gluzman, I.**, Stability analysis of shear flows and boundary layers based on disturbance magnitude, *First Israeli Fluid Mechanics Conference*, September 8th, 2025, at the Technion – Israel Institute of Technology, Haifa, Israel

### Contributed talks and posters

Graduate students are denoted by (\*). The presenter is underlined:

1. §Eidelman, A., Elperin, T., **Gluzman, I.\***, Kleeorin, N., and Rogachevskii, I., Experimental Study of Temperature Fluctuations in Forced Stably Stratified Turbulent Flows, *The 32nd Israeli Conference of Mechanical Engineering*, Tel-Aviv, Israel, October 17–18, 2012. (§**Authors are ordered alphabetically**)

2. §Eidelman, A., Elperin, T., **Gluzman, I.\***, Kleeorin, N., and Rogachevskii, I., Temperature and Velocity Fluctuations in Forced Stably Stratified and Convective Turbulent Flows: Experiments and Theory, *14th European Turbulence Conference*, Lyon, France, September 1–4, 2013. (§Authors are ordered alphabetically)
3. §Eidelman, A., Elperin, T., **Gluzman, I.\***, Golbraikh, E., Helicity of Turbulent Flow with Coherent Structures in Rayleigh-Bénard Convective Cell, *14th European Turbulence Conference*, Lyon, France, September 1–4, 2013. (Poster). (§Authors are ordered alphabetically)
4. **Gluzman, I.\***, Cohen, J., Oshman, Y., Disturbance Source Identification for Flow Control, *6th Symposium on Global Flow Instability and Control*, Hersonissos, Crete, Greece, September 28–October 2, 2015.
5. **Gluzman, I.\***, Cohen, J., Oshman, Y., The Evolution of a 2D SDBD Plasma Generated Disturbance Along a Flat Plate Boundary Layer, *Aerospace Faculty Research Day*, Technion, Israel, April 13, 2016. (Poster).
6. **Gluzman, I.\***, Cohen, J., Oshman, Y., Disturbance Source Identification for Flow Control: Problem Formulation for Infinitesimal Disturbances, *The Annual Workshop of Graduate Students in Systems & Control Under the auspice of IAAC – the Israeli Association for Automatic Control*, Holon, Israel, May 2, 2016.
7. **Gluzman, I.\***, Cohen, J., Oshman, Y., Novel Method and Experimental Validation of Statistical Calibration via Gaussianization in Hot-wire Anemometry, *The 69th Annual Meeting of the American Physical Society – Division of Fluid Dynamics*, Portland, OR USA, November 20–22, 2016.
8. **Gluzman, I.\***, Cohen, J., Oshman, Y., Statistical Calibration of Hot-Wire Anemometer, *The 2017 Annual Aerospace Faculty Research Day*, Technion, Israel, April 19, 2017. (Poster).
9. **Gluzman, I.\***, Cohen, J., Oshman, Y., Disturbance Source Separation in Shear Flows Using the Degenerate Unmixing Estimation Technique (DUET), *The Annual Workshop of Graduate Students in Systems & Control Under the auspice of IAAC – the Israeli Association for Automatic Control*, Haifa, Israel, May 8, 2017.
10. **Gluzman, I.\***, Cohen, J., Oshman, Y., Disturbance Source Separation in Shear Flows Using Blind Source Separation Methods, *The 70th Annual Meeting of the American Physical Society – Division of Fluid Dynamics*, Denver, CO USA, November 19–21, 2017.
11. **Gluzman, I.**, Oshman, Y., Cohen, J., Estimation of Disturbance Propagation Velocity in Transitional Shear Flow, *Graduate Seminar in Fluid Mechanics*, Department of Mechanical Engineering, Johns Hopkins University, Baltimore, MD USA, May 4, 2018.
12. **Gluzman, I.**, Gayme, D. F., Energy Amplification and Flow Structure Evolution in Boundary Layers due to Localized Forcing, *Graduate Seminar in Fluid Mechanics*, Department of Mechanical Engineering, Johns Hopkins University, Baltimore, MD USA, November 9, 2018.
13. **Gluzman, I.**, Gayme, D. F., Energy Amplification and Coherent Structure Evolution due to Localized Forcing in Flat Plate Boundary Layer Flow, *The 71th Annual Meeting of the American Physical Society – Division of Fluid Dynamics*, Atlanta, GA USA, November 18–20, 2018.
14. **Gluzman, I.**, Gayme, D. F., Input-Output Framework for Actuated Boundary Layers, *2019 Research Symposium on Environmental and Applied Fluid Dynamics*, Johns Hopkins University, Baltimore, MD USA, May 30, 2019.
15. **Gluzman, I.**, Gayme, D. F., An Input-Output Approach to Evaluating Flow Response to Spatially Varying Actuator Geometries, *17th European Turbulence Conference*, Torino, Italy, September 3–6, 2019.
16. **Gluzman, I.**, Gayme, D. F., An Input-Output Approach to Investigate the Effects of Actuator Geometry, *Graduate Seminar in Fluid Mechanics*, Department of Mechanical Engineering, Johns Hopkins University, Baltimore, MD USA, September 13, 2019.
17. **Gluzman, I.**, Gayme, D. F., A Model-Based Investigation of the Effect of Actuator Geometry on Boundary Layer Flows, *The 72nd Annual Meeting of the American Physical Society – Division of Fluid Dynamics*, Seattle, WA USA, November 23–26, 2019.

18. **Gluzman, I.**, Gayme, D. F., Input-output approach to characterizing the structure interaction in turbulent boundary layers, *Graduate Seminar in Fluid Mechanics*, Department of Mechanical Engineering, Johns Hopkins University, Baltimore, MD USA, February 28, 2020.
19. **Gluzman, I.**, Thomas, F. O., Aviation Fuel Cavitation Model Development and Validation, *Friday Fluids Discussions*, Department of Aerospace and Mechanical Engineering, University of Notre Dame, Notre Dame, IN, USA, April 22, 2021.
20. **Gluzman, I.**, Thomas, F. O., Bubble dynamics and cavitation inception mechanism characterization in aviation fuel liquids via computer vision tools, *The 74th Annual Meeting of the American Physical Society – Division of Fluid Dynamics*, Phoenix, AZ USA, November 21–23, 2021.
21. **Gluzman, I.**, Thomas, F. O., Shock wave emission and evolution mechanisms in aerated cavitating aviation fuel flow in a converging-diverging nozzle, *The 74th Annual Meeting of the American Physical Society – Division of Fluid Dynamics*, Phoenix, AZ USA, November 21–23, 2021.
22. Pelster, A. \*, **Gluzman, I.**, Thomas, F. O., Experiments and Modeling of Aviation Fuel Cavitation in a Geometry Relevant to Aircraft Fuel Pumps, *The 75th Annual Meeting of the American Physical Society – Division of Fluid Dynamics*, Indianapolis, IN USA, November 20–22, 2022.
23. Gray P. \*, **Gluzman, I.**, Thomas F. O., Corke T. C., Mejia K., Coherent Vortical Structures in the Separated Flow over a 3-D Hump, *The 75th Annual Meeting of the American Physical Society – Division of Fluid Dynamics*, Indianapolis, IN USA, November 20–22, 2022.
24. **Gluzman, I.**, Pelster, A., Thomas F. O., Modeling and experimental characterization of aviation fuel cavitation in the radial flow between two parallel disks, *62nd Israel Annual Conference on Aerospace Sciences*, Tel-Aviv, Israel, March 15–16, 2023.
25. **Gluzman, I.**, Gray \*, P., Corke T. C., Thomas F. O., Accurate skin friction measurement over 3D surfaces via a simplified photogrammetry procedure in oil-film interferometry, *62th Israel Annual Conference on Aerospace Sciences*, Tel-Aviv, Israel, March 15–16, 2023.
26. Gray, P. \*, **Gluzman, I.**, Thomas F. O., Corke, T. C., Experimental Investigation of Embedded Shear Layer in Smooth-body Separated Flow over Boeing Bump, *62nd Israel Annual Conference on Aerospace Sciences*, Tel-Aviv, Israel, March 15–16, 2023.
27. Frank-Shafir, O. \*, **Gluzman, I.**, Input-output approach for modeling flow response to actuation in transitional boundary layer, *63rd Israel Annual Conference on Aerospace Sciences*, Tel-Aviv, Israel, May 9, 2024.
28. Zur, E. \*, **Gluzman, I.**, Computer vision algorithms application for the characterization of bubbly shock-wave morphology and their coupled interactions with bubbles in aerated cavitating flow, *63rd Israel Annual Conference on Aerospace Sciences*, Tel-Aviv, Israel, May 9, 2024.
29. Gabison, S. M. \*, **Gluzman, I.**, Computer vision algorithms application for tracking and characterization of bubble breakup dynamics in the nozzle flow of multicomponent liquids, *63rd Israel Annual Conference on Aerospace Sciences*, Tel-Aviv, Israel, May 9, 2024.
30. Vaizman, E. \*, **Gluzman, I.**, Investigation of near-wall scatter of scaled inflectional mean velocity profiles of turbulent separated flow over the Gaussian bump, *63rd Israel Annual Conference on Aerospace Sciences*, Tel-Aviv, Israel, May 9, 2024.
31. Frank-Shafir, O. \* , **Gluzman, I.**, Modeling energy pathways in transitional boundary layers, *Aerospace Faculty Research Day*, Technion, Israel, May 24, 2024. (Poster)
32. Zur, E. \* , **Gluzman, I.**, Adaptation of computer vision algorithms for the characterization of bubbly shock-wave morphology and their coupled interactions with bubbles in aerated cavitating flow, *Aerospace Faculty Research Day*, Technion, Israel, May 24, 2024. (Poster).
33. Vaizman, E. \* , **Gluzman, I.**, New scaling of inflectional mean velocity profiles in turbulent separated flow *Aerospace Faculty Research Day*, Technion, Israel, May 24, 2024. (Poster)
34. Frank-Shafir, O. \* , **Gluzman, I.**, Reynolds number effect on flow structure dominance in transitional boundary layers. The 77th Annual Meeting of the American Physical Society – Division of Fluid Dynamics, Salt Lake City, UT USA, November 24–26, 2024.

35. Zur, E.\*, **Gluzman, I.**, Utilization of computer vision algorithms for the characterization of coupled interactions between bubbly shocks and cavitation cloud, *64th Israel Annual Conference on Aerospace Sciences*, Hiafa, Israel, March 20, 2025.
36. Salunke, S.\*, **Gluzman, I.**, Modelling steady features of cavitation in radial flow between two overlying disks with varying gaps, *64th Israel Annual Conference on Aerospace Sciences*, Hiafa, Israel, March 20, 2025.
37. Baruch, R.\*, **Gluzman, I.**, Investigation of oil flow topology, pressure distribution, and drag in separated flow over low-Reynolds-number airfoil, *64th Israel Annual Conference on Aerospace Sciences*, Hiafa, Israel, March 20, 2025.
38. Frank-Shafir, O.\*, **Gluzman, I.**, Stability analysis of shear flows and boundary layers via novel stability criterion that utilizes the small gain theorem, *64th Israel Annual Conference on Aerospace Sciences*, Hiafa, Israel, March 20, 2025.
39. Frank-Shafir, O.\*, **Gluzman, I.**, A novel approach for analysing the stability of shear flows and boundary layers via concepts from the fields of robust and nonlinear control theory, *2025 IAAC Control Conference*, Herzliya, Israel, April 28, 2025.
40. Zur, E.\*, **Gluzman, I.**, Utilization of computer vision algorithms for the characterization of bubbly shock morphology in aerated cavitating flows, *Aerospace Faculty Research Day*, Technion, Israel, May 07, 2025. (Poster).
41. Salunke, S.\*, **Gluzman, I.**, Cavitation in radial flow between two overlying disks with thin varying gap, *Aerospace Faculty Research Day*, Technion, Israel, May 07, 2025. (Poster).
42. Salunke, S.\*, **Gluzman, I.**, Experimental characterization and modeling of cavitation in radial flow between two overlying disks with varying gap. The 70th Annual Meeting of the Israel Physical Society – Fluid Mechanics session, Technion - Israel Institute of Technology, Haifa, July 15, 2025.
43. Frank-Shafir, O.\*, **Gluzman, I.**, Disturbance-based criterion for analyzing the stability of shear flows utilizing input-output analysis and the small gain theorem, *The 78th Annual Meeting of the American Physical Society – Division of Fluid Dynamics*, Houston, Texas, USA, November 23-25, 2025. (Submitted)
44. Salunke, S.\*, **Gluzman, I.**, Radial flow cavitation between two overlying plates with varying gap: experiments and modeling, *The 78th Annual Meeting of the American Physical Society – Division of Fluid Dynamics*, Houston, Texas, USA, November 23-25, 2025. (Submitted)

## **NOTES**

### **Undergraduate Research and Experimental Projects**

Students denoted by (\*).

1. Frank-Shafir, O.\*, **Gluzman, I.**, Modeling of complex actuation modalities in transitional boundary layers, *Final Report submitted to Faculty of Aerospace Engineering, Technion*, publisher [AE Website](#), 2023/2024.
2. Zur, E.\*, **Gluzman, I.**, Extension of computer vision algorithms for characterization of coupled interactions between shockwaves and cavitation cloud, *Final Report submitted to Faculty of Aerospace Engineering, Technion*, publisher [AE Website](#), 2023/2024.
3. Gabison, S. M.\*, **Gluzman, I.**, Computer Vision Algorithms Application for Tracking and Characterization of Non-Spherical Bubbles in Cavitating Flows, *Final Report submitted to Faculty of Aerospace Engineering, Technion*, publisher [AE Website](#), 2023/2024. **Seginer Award winner for exceptional research project.**
4. Vaizman, E.\*, **Gluzman, I.**, Investigation of near-wall scatter of scaled inflectional mean velocity profiles of turbulent separated flow over the Gaussian bump geometry, *Final Report submitted to Faculty of Aerospace Engineering, Technion*, publisher [AE Website](#), 2023/2024.



5. Frank-Shafir, O. \*, **Gluzman, I.**, Modeling energy pathways with nonlinear interactions in transitional flows, *Final Report submitted to Faculty of Aerospace Engineering, Technion*, publisher [AE Website](#), 2024. **Travel grant award winner for exceptional research project to attend the 2024 AIAA Region VII Student Conference.**
6. Zur, E. \*, **Gluzman, I.**, Experimental setup design and utilization of computer vision algorithms for the characterization of coupled interactions between bubbly shocks and cavitation cloud, *Final Report submitted to Faculty of Aerospace Engineering, Technion*, publisher [AE Website](#), 2024.
7. Bulkowstein, S. \*, **Gluzman, I.**, Skin friction measurement over delta wing using photogrammetric oil film interferometry, *Final Report submitted to Faculty of Aerospace Engineering, Technion*.
8. Baruch, R. \*, **Gluzman, I.**, Investigation of oil flow topology, pressure distribution, and drag in separated flow over low-Reynolds-number airfoil, *Final Report submitted to Faculty of Aerospace Engineering, Technion*, publisher [AE Website](#), 2025.