

# CURRICULUM VITAE

## Vladimir Turetsky, Professor

November 2020

### EDUCATION

Ph.D. 1988, Applied Mathematics, Institute of Mathematics and Mechanics,  
Ural Branch of the USSR Academy of Sciences, Sverdlovsk, USSR

M.Sc. 1981, Applied Mathematics, Ural State University, Sverdlovsk, USSR

### RESEARCH INTERESTS

- Robust Control
- Differential Games
- Guidance
- Inverse Problems

### ACADEMIC APPOINTMENTS

May 2018 – Present	Professor, Ort Braude College
Oct. 2010 – May 2018	Associate Professor, Ort Braude College
2006 – Present	Senior Research Associate, Technion, Haifa, Israel
2000 - 2006	Researcher, Technion, Haifa, Israel
2005 - 2010	Adjunct Lecturer, ORT Braude College, Karmiel, Israel
2002 - 2004	Adjunct Lecturer, Technion Center for Pre-University Education, Haifa, Israel
1994 - 1999	Associate Professor, Ural State University, Ekaterinburg, Russia
1992 - 1994	Assistant Professor, Ural State University, Ekaterinburg, Russia

### TEACHING EXPERIENCE

#### ORT Braude College of Engineering:

##### Graduate Courses:

Optimization Methods in Industrial Engineering (new course)  
Analytical Methods in Mechanical Engineering 2 (new course)

##### Undergraduate Courses:

Series, Transforms and Differential Equations  
Calculus II  
Ordinary Differential Equations  
Partial Differential Equations  
Differential Equations and Integral Transforms  
Linear Algebra I

Numerical Analysis  
Nonlinear Optimization  
Calculus of Variations (new course)  
Linear Optimization  
Deterministic Models in Operations Research  
Differential Equations and Control Systems (new course)

## **Ural State University**

### **Undergraduate Courses:**

Mathematics and Computer Sciences (liberal arts faculties)  
Database programming  
C Language Programming

### **Graduate Courses:**

Linear Systems  
Control Theory  
Linear-Quadratic Control Problem in Hilbert Space

## **APPEARANCE OF SCIENTIFIC PUBLICATIONS IN SCIENTIFIC DATABASES**

SCOPUS: 87 publications are included  
GOOGLE SCHOLAR: 94 publications are included

## **CITATION OF SCIENTIFIC PUBLICATIONS**

According to SCOPUS: 633 citations, h-index = 15;  
According to GOOGLE SCHOLAR: 691 citations, h-index = 16, i10-index = 26;

## **ACADEMIC AND PROFESSIONAL AWARDS AND GRANTS**

2020 Ort Braude College Award for Excellence (2018-2019 academic year)  
2019 Ort Braude College Award for Excellence (2017-2018 academic year)  
2018 Ort Braude College Award for Excellence in Research (2016-2017 academic year)  
2017 Ort Braude College Award for Excellence in Research (2015-2016 academic year)  
2016 Ort Braude College Award for Excellence in Research (2014-2015 academic year)  
2015 Ort Braude College Award for Excellence in Research (2013-2014 academic year)  
2011 Best paper award, International Conference of Applied and Engineering Mathematics, World Congress on Engineering, London, UK.  
1999 George Soros Associate Professorship

## **MEMBERSHIP IN PROFESSIONAL SOCIETIES**

- International Society on Dynamic Games
- Israeli Association for Automatic Control
- American Society of Mechanical Engineers
- Israel Mathematic Society

## PROFESSIONAL ACTIVITIES

2018 – Present      Member of Executive Council, Israeli Association for Automatic Control

### ORT Braude College:

2013 – Present      Member, Ort Braude College, committee on the Excellence Program  
2011 – 2013      Member, Ort Braude College, committee on advanced studies and  
conference participation  
2012 – Present      Member, Department of Applied Mathematics, recruit committee  
2016 – Present      Member, Department of Applied Mathematics, committee on final projects

### Conferences:

- Member of Organizing Committee:
  - 1) The Eleventh Interdisciplinary Research Conference of the Ort Braude College, October 2015.
- Special sessions and mini-symposiums co-organizer:
  - 1) The 60<sup>th</sup> British Applied Mathematic Colloquium, March 2018, St. Andrews, UK, Mini-symposium “Optimal Control and Dynamic Games: Theory and Application”.
- Member of International Program Committee:
  - 1) The 7<sup>th</sup> International Conference on Control, Decision and Information Technologies (CoDIT'19) , Prague, Czech Republic, June - July 2020.
  - 2) The 13<sup>th</sup> International Conference on Integrated Modeling and Analysis in Applied Control and Automation, September 2020, Athens, Greece.
  - 3) The 6<sup>th</sup> International Conference on Control, Decision and Information Technologies (CoDIT'19) , Paris, France, April 2019.
  - 4) The 17<sup>th</sup> IFAC Workshop on Control Applications of Optimization, Yekaterinburg, Russia, October 2018.
  - 5) The 11<sup>th</sup> International Conference on Integrated Modeling and Analysis in Applied Control and Automation, September 2018, Budapest, Hungary.
  - 6) The 8<sup>th</sup> International Conference on Integrated Modeling and Analysis in Applied Control and Automation, September 2016, Larnaka, Cyprus.
  - 7) The 7<sup>th</sup> International Conference on Integrated Modeling and Analysis in Applied Control and Automation, September 2015, Bergamo, Italy.
  - 8) 16<sup>th</sup> IFAC Workshop on Control Applications of Optimization, October 2015, Garmisch – Partenkirchen, Germany.
  - 9) The 6<sup>th</sup> International Conference on Integrated Modeling and Analysis in Applied Control and Automation, September 2013, Athens, Greece.
- Technical Associate Editor: The 19th World Congress of the International Federation of Automatic Control, August 2014, Cape Town, South Africa.
- Session chair/co-chair:
  - 1) The 61<sup>st</sup> British Applied Mathematic Colloquium, April 2019, Bath, UK, Session “Optimization and Control Theory”.
  - 2) The 17<sup>th</sup> IFAC Workshop on Control Applications of Optimization CAO' 2018, October 2018, Yekaterinburg, Russia.
  - 3) The 10th IFAC Symposium on Nonlinear Control Systems – NOLCOS 2016, August 2016, Monterey, CA, USA
  - 4) The 16th IFAC workshop on Control Applications of Optimization, October 2015, Garmisch-Partenkirchen, Germany.

- 5) The 55th Israel Annual Conference on Aerospace Sciences, February 2015, Tel Aviv – Haifa, Israel.
- 6) The Tenth Interdisciplinary Research Conference of the Ort Braude College, October 2014, Nahariya, Israel.
- 7) The 2nd International Conference on Control and Fault-Tolerant Systems, October 2013, Nice, France.
- 8) International Conference of Applied and Engineering Mathematics, World Congress on Engineering, July 2011, London, UK.
- 9) IFAC Workshop on Control Applications of Optimization, May 2009, Jyvaskyla, Finland.
- 10) International Conference on Instrumentation, Control and Information Technology, August 2008, Chofu City, Japan.

**International professional organizations:**

Member, the Technical Committee TC 2.4 on Optimal Control of the International Federation of Automatic Control

**Professional Experience:**

1988 - 1992 Senior Research Associate, Institute of Metrology, Ekaterinburg, Russia  
 1981 - 1985 Researcher, Institute of Metrology, Ekaterinburg, Russia

**Reviewing activities:**

- Mathematical Reviews: 97 reviews published
- Journals:
  - 1) Abstract and Applied Analysis
  - 2) Aerospace Science and Technology
  - 3) Annals of Mathematics and Artificial Intelligence
  - 4) Automatica
  - 5) Differential Games and Applications
  - 6) IEEE Transactions on Automatic Control
  - 7) IEEE Transactions on Control Systems Technology
  - 8) IEEE Transactions on Industrial Electronics
  - 9) IEEE Transactions on Systems, Man, and Cybernetics--Part B: Cybernetics
  - 10) International Game Theory Review
  - 11) International Journal of Applied Mathematics and Computer Science
  - 12) International Journal of Control
  - 13) International Journal of Control, Automation, and Systems
  - 14) International Journal of Robust and Nonlinear Control
  - 15) International Journal of Systems Science
  - 16) Journal of Applied Mathematics
  - 17) Journal of Control and Decision
  - 18) Journal of Guidance, Control and Dynamics
  - 19) Journal of Franklin Institute
  - 20) Journal of Optimization Theory and Applications
  - 21) Operation Research Letters
  - 22) Pure and Applied Functional Analysis
  - 23) Systems & Control Letters
- 25 international conferences
- 3 books
- 1 book proposal

## **Participation in Professional Projects**

- 2015 – Present: Cooperative Evasion and Pursuit for the Autonomous Vehicles, Faculty of Aerospace Engineering, Technion – Israel Institute of Technology, grant of the US Air Force (Principal Investigator: Associate Professor T. Shima)
- 2005 – 2010: "Design of Improved Interception Guidance Laws by Differential Game Approach", Faculty of Aerospace Engineering, Technion – Israel Institute of Technology, grant of the Israel Scientific Foundation (Principal Investigator: Professor J. Shinar)
- 2000 – 2005: "Guidance Research towards Reduced Miss Distances", Faculty of Aerospace Engineering, Technion – Israel Institute of Technology, grant of the US Air Force (Principal Investigators: Professor J. Shinar, Professor Y. Oshman)
- 1993 – 1999: "Linear-Quadratic Control Problems in Hilbert Spaces", Faculty of Mathematics and Mechanics, Ural State University, Ekaterinburg, Russia, grant of Russian Foundation for Basic Research (Principal Investigator: Professor V.Ye.Tretyakov)

## **Educational activities:**

### Developing courses:

- "Analytical Methods 2" (M.Sc.), Department of Mechanical Engineering, Ort Braude College, 2017
- "Methods of Optimization in Industrial Engineering" (M.Sc.), Department of Industrial Engineering and Management, Ort Braude College, 2011
- "Calculus of Variations", Department of Applied Mathematics, Ort Braude College, 2010
- Creating the educational program on Mathematics and Computer Sciences at non-mathematical faculties, the Ural State University, Ekaterinburg, Russia, 1992

### Supervising student projects:

- Final B.Sc. projects, Department of Applied Mathematics:
  - 1) Reem Taf, "Cheating at exams: from the viewpoint of optimization and game theory" (in progress)
  - 2) Polina Roizman, "Regularization of ill-posed problems with application to function approximation", August 2018
  - 3) Azhar Hir, "Mass optimization of multistage rockets", March 2015
  - 4) Liran Shtrauh, "Cost minimization problem for a stochastic input-output Model", May 2014
  - 5) Elyad Rozengarten, "The Fermat-Weber location problem", June 2014
  - 6) Ofir Hazan, "Using the sliding mode differentiator technique in missile guidance laws", May 2011
- Project entitled "Tracking a prescribed trajectory by a ground Dubins' robot", performed by the M.Sc. student Jha Bhargav, in the Technion Cooperative Autonomous Systems Laboratory, 2017

## LIST OF PUBLICATIONS

### Refereed Journal Papers

1. Turetsky, V., Steinberg, D.M., and Bashkansky, E., Item response function in antagonistic situations, *Applied Stochastic Models in Business and Industry*, 2020, pp. 1 – 15 (published online 5/05/20, <https://doi.org/10.1002/asmb.2539>)
2. Turetsky, V., Book review: “Dynamic Shapley Value and Dynamic Nash Bargaining” by David Yeung and Leon Petrosyan, *International Game Theory Review*, Vol. 21, No. 3, 2019, pp. 1980001-1 – 1980001-3.
3. Turetsky, V., Weiss, M., and Shima, T., Minimum effort pursuit guidance with delayed engagement decision, *Journal of Guidance, Control and Dynamics*, Vol. 42, No. 12, 2019, pp. 2664 – 2670.
4. Bhargav, J., Turetsky, V., and Shima, T., Robust path tracking by a Dubins ground vehicle, *IEEE Transactions on Control Systems Technology*, Vol. 27, No. 6, 2019, pp. 2614 – 2621.
5. Turetsky, V., and Glizer, V. Y. Open-loop solution of a defender-attacker-target game: penalty function approach, *Journal of Control and Decision*, Vol. 6, No. 3, 2019, pp. 166 – 190.
6. Turetsky, V., and Shima, T., Pursuit-evasion guidance in a switched system, *SIAM Journal on Control and Optimization*, Vol. 56, No. 4, 2018, pp. 2613 – 2633.
7. Turetsky, V., Steinberg, D.M., and Bashkansky, E., Binary test design problem, *Measurement*, Vol. 122, 2018, pp. 20 – 26.
8. Bashkansky, E., and Turetsky, V., Ability evaluation by binary tests: problems, challenges & recent advances, *Journal of Physics: Conference Series*, Vol. 172, No. 1, 2016, pp. 1 – 6.
9. Turetsky, V., and Shima, T., Target evasion from a missile performing multiple switches in guidance law, *Journal of Guidance, Control and Dynamics*, Vol. 39, No. 10, 2016, pp. 2364 – 2373.
10. Bashkansky, E., and Turetsky, V., Proficiency testing: binary data analysis, *Accreditation and Quality Assurance*, Vol. 21, No. 4, 2016, pp. 265 – 270.
11. Turetsky, V., Robust route realization by linear-quadratic tracking, *Journal of Optimization Theory and Applications*, Vol. 170, No. 3, 2016, 977 – 992.
12. Turetsky, V., and Bashkansky, E., Testing and evaluating one-dimensional latent ability, *Measurement*, Special Issue for IMEKO TC21, Vol. 78, 2016, pp. 348 – 357.
13. Turetsky, V., Book review: “Mathematical Game Theory and Applications” by Vladimir Mazalov, *International Game Theory Review*, Vol. 17, No. 3, 2015, pp. 1580001-1 – 1580001-3.
14. Shinar, J., Glizer, V.Y., and Turetsky, V., Terminal state distribution of continuous-time system with random disturbance and noise-corrupted information, *IAEng International Journal of Applied Mathematics*, Vol. 45, No. 2, 2015, pp. 77 – 84.
15. Glizer, V.Y., and Turetsky, V., Increasing pursuer capturability by using hybrid dynamics, *International Journal of Applied Mathematics & Computer Science*, Vol. 25, No. 1, 2015, Special Issue "Safety, Fault Diagnosis and Fault Tolerant Control in Aerospace Systems", pp. 78 – 92.
16. Glizer, V.Y., Turetsky, V., and Bashansky, E., Statistical process control optimization with variable sampling interval and nonlinear expected loss, *Journal of Industrial and Management Optimization*, Vol. 11, No. 1, 2015, pp. 105 – 133.
17. Shinar, J., Glizer, V.Y., and Turetsky, V., Solution of a singular zero-sum linear-quadratic differential game by regularization, *International Game Theory Review*,

Special Issue dedicated to the memory of Professor Nikolay Nikolaevich Krasovskiy (1924 – 2012), Vol. 16, No. 2, 2014, pp. 1440007-1 – 1440007-32.

18. Shinar, J., Glizer, V.Y., and Turetsky, V., Capture zone of linear strategies in interception problems with variable structure dynamics, *Journal of the Franklin Institute*, Special Issue on 2010-2012 Advances in Variable Structure Systems and Sliding Mode Algorithms, Vol. 351, 2014, pp. 2378 – 2395
19. Turetsky, V., Glizer, V.Y., and Shinar, J., Robust trajectory tracking: differential game/ cheap control approach, *International Journal of Systems Science*, Vol. 45, Issue 11, 2014, pp. 2260 – 2274.
20. Shinar, J., Turetsky, V., and Glizer, V.Y., On estimation in interception endgames, *Journal of Optimization Theory and Applications* (invited paper), Vol. 157, Issue 3, 2013, pp. 593 – 611.
21. Shinar, J., Glizer, V.Y., and Turetsky, V., Complete solution of a pursuit-evasion differential game with hybrid evader dynamics, *International Game Theory Review*, Vol. 14, No. 3, 2012, pp. 1250014-1 – 1250014-31, the 2<sup>nd</sup> within the most read papers in 2013, the 3<sup>rd</sup> within the most read papers, January 2014.
22. Glizer, V.Y., Turetsky, V., and Shinar, J., Terminal cost distribution in discrete-time controlled system with disturbance and noise-corrupted state information, *IAEng International Journal of Applied Mathematics*, Vol. 42, Issue 1, 2012, pp. 52 – 59.
23. Glizer, V.Y., Turetsky, V., Fridman, L., and Shinar, J., History-dependent modified sliding mode interception strategies with maximal capture zone, *Journal of the Franklin Institute*, Vol. 349, Issue 2, 2012, pp. 638 – 657.
24. Shinar, J., Glizer, V.Y., and Turetsky, V., Robust pursuit of a hybrid evader, *Applied Mathematics and Computation*, Special Issue in Honor of Professor George Leitmann on his 85th Birth year, (F. E. Udawadia, Ed.), Vol. 217, Issue 3, 2010, pp. 1231 – 1245.
25. Glizer, V.Y., and Turetsky, V., Robust transferrable sets of linear transferring strategies, *Journal of Optimization Theory and Applications*, Vol. 145, No. 1, 2010, pp. 36 – 52.
26. Shinar, J., Glizer, V.Y., and Turetsky, V., A pursuit-evasion game with hybrid pursuer dynamics, *European Journal of Control*, Vol. 15, No. 6, 2009, pp. 665 – 684.
27. Shinar, J., and Turetsky, V., Three-dimensional validation of an integrated estimation/guidance algorithm against randomly maneuvering targets, *Journal of Guidance, Control and Dynamics*, V. 32, No. 3, 2009, pp. 1034 – 1039.
28. Glizer, V.Y., and Turetsky, V., A linear differential game with bounded controls and two information delays, *Optimal Control, Applications and Methods*, Vol. 30, No. 2, 2009, pp. 135 – 161.
29. Shinar, J., Turetsky, V., Glizer, V.Y., and Ianovsky, E., Solvability of linear-quadratic differential games associated with pursuit-evasion problems, *International Game Theory Review*, Special Issue devoted to 80th jubilee of the Nobel Prize Laureate Prof. John Forbes Nash Jr. Vol. 10, No. 4, 2008, pp. 481 – 515.
30. Turetsky, V., Capture zones of linear feedback pursuer strategies, *Automatica*, Vol. 44, No. 2, 2008, pp. 560 – 566.
31. Glizer, V.Y., and Turetsky, V., On the inverse problem for robust capture zone construction, *Journal of Optimization Theory and Applications*, Vol. 137, No. 2, 2008, pp. 381 – 400.
32. Glizer, V.Y., and Turetsky, V., Complete solution of a differential game with linear dynamics and bounded controls, *Applied Mathematics Research eXpress*,

- Vol. 2008, article ID: abm012, pp. 1 – 49.
33. Glizer, V.Y., and Turetsky, V., Robust controllability of linear systems: analysis and application to pursuit problems, *PAMM - Proceedings of Applied Mathematics and Mechanics*, Vol. 7, 2007, pp. 2030035 – 2030036.
  34. Turetsky, V., and Glizer, V.Y., Robust solution of a time-variable interception problem: a cheap control approach, *International Game Theory Review*, Vol. 9, No. 4, 2007, pp. 637 – 655.
  35. Glizer, V.Y., Fridman, L.M., and Turetsky, V., Cheap suboptimal control of uncertain systems with state delays, *IEEE Transactions on Automatic Control*, Vol. 52, No. 10, 2007, pp. 1892 – 1898.
  36. Turetsky, V., Capture zones of cheap control interception strategies, *Journal of Optimization Theory and Applications*, Vol. 135, No. 1, 2007, pp. 69 – 84.
  37. Shinar, J., Turetsky, V., and Oshman, Ya., Integrated estimation/guidance design approach for improved homing against randomly maneuvering targets, *Journal of Guidance, Control and Dynamics*, Vol. 30, No. 1, 2007, pp. 154 – 160.
  38. Shinar, J., and Turetsky, V., Improved estimation is a prerequisite for successful terminal guidance, Special Issue "Advances in Missile Guidance and Control: Theory and Practice", *Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering*, Vol. 129, No. G2, 2005, pp. 145 – 156.
  39. Turetsky, V., and Glizer, V.Y., Continuous feedback control strategy with maximal capture zone in a class of pursuit games, *International Game Theory Review*, Vol. 7, No. 1, 2005, pp. 1 – 24.
  40. Turetsky, V., and Glizer, V.Y., Robust state-feedback controllability of linear systems to a hyperplane in a class of bounded controls, *Journal of Optimization Theory and Applications*, Vol. 123, No. 3, 2004, pp. 639 – 667.
  41. Turetsky, V., Upper bounds of the pursuer control based on a linear-quadratic differential game, *Journal of Optimization Theory and Applications*, Vol. 121, No. 1, 2004, pp. 163 – 191.
  42. Shinar, J., and Turetsky, V., What happens when certainty equivalence is not valid? / Is there an optimal estimator for terminal guidance? *Annual Reviews in Control* **2.627/Q1**, Vol. 27, Issue 2, 2003, pp. 119 – 130.
  43. Turetsky, V., and Shinar, J., Missile guidance laws based on pursuit-evasion game formulations, *Automatica*, Vol. 39, No. 4, 2003, pp. 607 – 618.
  44. Turetskij, V.Ya., Differential game with generalized positional performance index (English, Russian original), *Journal of Computer and Systems Sciences International*, Vol. 36, No. 1, 1997, pp. 83 – 86; translation from *Izvestiya Akademii Nauk, Teoriya Sistem Upravleniya*, No. 1, 1997, pp. 91–94.
  45. Tret'yakov, V.Ye., and Turetskij, V.Ya., Using an auxiliary differential game to synthesize a pursuit strategy (English. Russian original), *Journal of Computer and Systems Sciences International*, Vol. 33, No. 6, 1995, pp. 140 – 145; translation from *Izvestiya RAN. Technicheskaya Kibernetika*, No. 3, 1994.
  46. Turetskij, V.Ya., Solubility condition for a linear-quadratic game (English, Russian original), *Automation and Remote Control*, Vol. 50, No. 8, 1989, pp. 1045 – 1052; translation from *Avtomatika i Telemekhanika*. 1989. No. 8, 1989, pp. 55 – 64.
  47. Turetskij, V.Ya., Moving a linear system to a neighborhood of the origin (English, Russian original), *Automation and Remote Control*, Vol. 50, No. 1, 1989, pp. 75 – 81; translation from *Avtomatika i Telemekhanika*, No. 1, 1989, pp. 99 – 106.



48. Turetsky, V.Ya., A solution of linear-quadratic game of general form, All-Union Institute of Scientific Research and Technical Information (VINITI), 1988, No.3846-v88, 36 p. (in Russian).

### Books

1. Valery Y. Glizer, and Vladimir Turetsky, *Robust controllability of linear systems*, Nova Science Publishers Inc., New York, NY, 2012.
2. Turetsky, V., *Mathematics and Computers / A textbook for the liberal arts faculties*. Ekaterinburg, Ural State Univ., 1997. 612 p. 2<sup>nd</sup> Edition: 1998. 3<sup>rd</sup> edition: Moscow, Infra-M, 2000 – 2018 (in Russian).
3. Turetsky, V., *Introduction to mathematics. Sets and relations*, A handbook for undergraduate students of the Faculty of Psychology, Ural State University, Ekaterinburg, 1995. 36 p. (in Russian).

### Book Chapters

1. Le Ménéec, S., and Turetsky, V., Computation of robust capture zones using interval based viability techniques in presence of state uncertainties, In: *Advances in Dynamic Games* (David M. Ramsey and Jérôme Renault, Eds.), *Annals of the International Society of Dynamic Games*, Vol.17, Ch. 4, pp. 75 – 100, Birkhauser Basel, 2020.
2. Glizer, V.Y., and Turetsky, V., Optimal time-sampling in a statistical process control with a polynomial expected loss, In: *Informatics in Control, Automation and Robotics, 15th International Conference ICINCO 2018, Porto, Portugal, July 29-31, 2018, Revised Selected Papers* (O. Gusikhin and K. Madani, Eds.), *Lecture Notes in Electrical Engineering*, Vol. 613, Ch. 2, pp. 26 – 50, Springer Nature Switzerland AG, 2020
3. Shinar, J., Glizer, V.Y., and Turetsky, V., Pursuit-evasion game of kind between hybrid players, In: *Advances in Dynamic and Evolutionary Games* (F. Thuijsman and F. Wagener, Eds.), *Annals of the International Society of Dynamic Games*, Vol.14, Ch. 9, pp. 187 – 208, Springer International Publishing Switzerland, 2016.
4. Shinar, J., Glizer, V.Y., and Turetsky, V., The effect of pursuer dynamics on the value of linear pursuit-evasion games with bounded controls, In: *Advances in Dynamic Game Theory – Theory, Applications and Numerical Methods* (V. Krivan, G. Zaccour, Eds.), *Annals of the International Society of Dynamic Games*, Vol. 13, Ch. 15, pp. 313 – 350, Birkhauser Basel, 2013.
5. Shinar, J., Glizer, V.Y., and Turetsky, V., Solution of a linear pursuit-evasion game with variable structure and uncertain dynamics, In: *Advances in Dynamic Game Theory – Theory, Numerical Methods, Algorithms, and Applications to Ecology and Economics* (S. Jorgensen, M. Quincampoix and T. Vincent, Eds.), *Annals of the International Society of Dynamic Games*, Vol. 9, pp. 195 – 222, Birkhauser, Boston, 2007.
6. V.Ya.Turetsky, Differential game solubility condition in H-infinity optimization, In: *Nonsmooth and discontinuous problems of control and optimization. Proceedings of the IFAC Workshop (NDPCO'98) held in Chelyabinsk, June 17--20, 1998*, edited by V. D. Batukhtin, F. M. Kirillova, and V. I. Ukhobotov, Pergamon Press, pp. 209–214, New York, NY, 1999.
7. Turetsky, V., and Lemsh, E., A feedback control in linear system identification, In: *"Control Applications of Optimization 1995". A postprint*

*Volume from the 10th IFAC Workshop on Control Applications of*

*Optimization, December 1995, Haifa, Israel, pp. 1 – 4, Pergamon Press, 1996.*

8. V.Ya.Turetsky, Saddle point in the differential game with non-positional cost functional, In: *Some control and stability problems*, pp. 107 – 123, Institute of Mathematics and Mechanics, Urals Department of USSR Academy of Sciences, Sverdlovsk, 1989 (in Russian).
9. V.Ya.Turetsky, A prescribed motion tracking problem in conditions of non-controllable disturbances, In: *Optimization and stability problems in controlled systems*, pp. 91 – 106, Institute of Mathematics and Mechanics, Urals Department of USSR Academy of Sciences, Sverdlovsk, 1990 (in Russian).

### **Submitted**

1. Turetsky, V., and Glizer, V.Y. Optimal decision in a statistical process control with cubic loss, *Journal of Industrial and Management Optimization*
2. Turetsky, V., Weiss, M., and Shima, T., A combined linear quadratic/bounded control differential game guidance law, *IEEE Transactions on Aerospace and Electronic Systems*

### **Refereed Conference Proceedings**

(underlined number denotes the papers presented by V. Turetsky)

1. Turetsky, V., Weiss, M., and Shima, T., Combined linear quadratic/bounded control differential game with delayed pursuit decision, *III International Seminar "Control Theory and Theory of Generalized Solutions of Hamilton-Jacobi Equations"*, October 2020, Ekaterinburg, Russia, pp. 91 – 95 (online presentation).
2. Turetsky, V., Weiss, M., and Shima, T., Pursuit-evasion game with delayed pursuit decision, *Proceedings of the 60th Israel Annual Conference on Aerospace Sciences*, March 2020, Tel Aviv – Haifa, Israel, pp. 157 – 178.
3. Turetsky, V., and Glizer, V.Y., Defender-attacker-target game: first-order defender and attacker dynamics, *Proceedings of International Conference on Integrated Modeling and Analysis in Applied Control and Automation, 2019*, Lisbon, Portugal (Bruzzone, Daufen-Tanguy and Junco Eds.), pp. 65 – 72.
4. Turetsky, V., Linear-quadratic differential game control: two ways to ensure solvability, *Proceedings of the 22<sup>nd</sup> Nordic Process Control Workshop, August 2019*, Kgs. Lyngby, Denmark, pp. 49 – 54.
5. Glizer, V.Y., and Turetsky, V., Robust optimization of statistical process control, *Proceedings of the 27th Mediterranean Conference on Control and Automation*, July 2019, Akko, Israel, pp. 112 – 117.
6. Turetsky, V., Weiss, M., and Shima, T., Minimum control effort guidance with delayed pursuit decision, *Proceedings of the 27th Mediterranean Conference on Control and Automation*, July 2019, Akko, Israel, pp. 589 – 594.
7. Turetsky, V., Hayoun, S. Y., Shima, T., and Tarasyev, A., On the value of differential game with asymmetric control constraints, IFAC – Papers OnLine, Vol. 51, Issue 32, *Proceedings of the 17th IFAC Workshop on Control Applications of Optimization CAO 2018, Yekaterinburg, Russia, 15 – 19 October 2018* (Edited by Tatiana Filippova), pp. 799 – 804.
8. Glizer, V.Y., and Turetsky, V., Optimal time-sampling problem in a statistical control with a quadratic cost functional: analytical and numerical approaches, *Proceedings of the 15th*

- International Conference on Informatics in Control, Automation and Robotics (ICINCO 2018)*, July 2018, Porto, Portugal, pp. 21 – 32.
9. Bhargav, J., Turetsky, V., and Shima, T., Linear-quadratic robust path tracking for a Dubins vehicle, *Proceedings of the European Control Conference*, June 2018, Limassol, Cyprus, pp. 2101 –2106.
  10. Bhargav, J., Turetsky, V., and Shima, T., Planar path tracking by a Dubins vehicle in the presence of disturbance, *Proceedings of the 58<sup>th</sup> Israel Annual Conference on Aerospace Sciences*, March 2018, Tel Aviv – Haifa, Israel, pp. 1670 –1682.
  11. Turetsky, V., and Shima, T., On matrix games associated with pursuit-evasion problem for a switched system, *Proceedings of 57th Israel Annual Conference on Aerospace Sciences*, March 2017, Tel Aviv – Haifa, Israel, pp. 1 – 14.
  12. Turetsky, V., and Le Méneç, S., Robust capture zone approximation by interval integration with uncertainty, *Proceedings of the 20<sup>th</sup> IFAC Symposium on Automatic Control in Aerospace – ACA 2016*, August 2016, Sherbrooke, Canada, *IFAC-PapersOnLine*, Vol. 49, Issue 17, 2016, pp. 28 – 33.
  13. Turetsky, V., and Shima, T., Hybrid evasion strategy against a missile with guidance law with variable structure, *Proceedings of the 2016 American Control Conference*, July 2016, Boston, MA, USA, pp. 3132 – 3137.
  14. Turetsky, V., Robust trajectory tracking for a feedback linearizable nonlinear system, *Proceedings of the 10<sup>th</sup> IFAC Symposium on Nonlinear Control Systems – NOLCOS 2016*, August 2016, Monterrey, CA, USA, *IFAC-PapersOnLine*, Vol. 49, Issue 18, 2016, pp. 540 – 545.
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