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I. International Reviewed Journals (50 papers)

- IJ1. A. Polyakov, J.-M. Coron, L. Rosier, On Homogeneous Finite-Time Control for Linear Evolution Equation in Hilbert Space, **IEEE Transactions on Automatic Control**, 2018, (IF: 4.270).
- IJ2. A. Polyakov, Sliding Mode Control Design Using Canonical Homogeneous Norm, **International Journal of Robust and Nonlinear Control**, 2018, (IF: 3.393).
- IJ3. Y. Dvir, A. Levant, D. Efimov, A. Levant, A. Polyakov, W. Perruquetti, Acceleration of finite-time stable homogeneous systems, **International Journal of Robust and Nonlinear Control**, 2018, 28(5), p. 1757-1777 (IF: 3.393).
- IJ4. G. Zheng, A. Polyakov, A. Levant, Delay estimation via sliding mode for nonlinear time-delay systems, **Automatica**, 2018, 89 (3), p. 266-273, (IF: 5.451).
- IJ5. F. Lopez Ramirez, A. Polyakov, D. Efimov, W. Perruquetti, Finite-time and fixed-time observer design: Implicit Lyapunov function approach, **Automatica**, 2018, 87, p. 52-60, (IF: 5.451).
- IJ6. M. Feingesicht, A. Polyakov, F. Kerherve, J.-P. Richard, SISO model-based control of separated flows: Sliding mode and optimal control approaches, **International Journal of Robust and Nonlinear Control**, 2017, (IF: 3.393).
- IJ7. D. Efimov, A. Levant, A. Polyakov, W. Perruquetti, Supervisory Acceleration of Convergence for Homogeneous Systems, **International Journal of Control**, 2018, accepted (IF: 2.208)
- IJ8. K. Zimenko, D. Efimov, A. Polyakov, W. Perruquetti, A note on delay robustness for homogeneous systems with negative degree, **Automatica**, 2017, 79(5), p. 178-184, (IF: 5.451).
- IJ9. D. Efimov, A. Polyakov, A. Levant, W. Perruquetti, Realization and Discretization of Asymptotically Stable Homogeneous Systems, **IEEE Transactions on Automatic Control**, 2017, 62(11), p. 5962 - 5969, (IF: 4.270).
- IJ10. D. Efimov, A. Levant, A. Polyakov, W. Perruquetti, Supervisory Acceleration of Convergence for Homogeneous Systems, **International Journal of Control**, 2017, (IF: 2.208).
- IJ11. A. Polyakov, L. Hetel, Relay Control Design for Robust Stabilization in a Finite-Time, **IEEE Transactions on Automatic Control**, 2017, 62(4), p. 1985-1991 (IF: 4.270)
- IJ12. S. Zhuk, A. Polyakov, O. Nakonechnyi, Note on Minimax Sliding Mode Control Design for Linear Systems, **IEEE Transactions on Automatic Control**, 2017, 62(7), p. 3395 - 3400 (IF: 4.270)
- IJ13. H. Rios, M. Mera, D. Efimov, A. Polyakov, Robust output control for uncertain linear systems: Homogeneous differentiator-based observer approach, **International Journal of Robust and Nonlinear Control**, 2017, accepted (IF: 3.393)
- IJ14. K. Zimenko, A. Polyakov, D. Efimov, A. Kremlev, Feedback sensitivity functions analysis of finite-time stabilizing control system, **International Journal of Robust and Nonlinear Control**, 2017, 27(15), p. 2475-2491 (IF: 3.393)

- IJ15. M. Defoort, G. Demesure, Z. Zuo, A. Polyakov, M. Djemai, Fixed-time stabilisation and consensus of non-holonomic systems, **IET Control Theory & Applications**, 2016, 10(18), p. 2497 - 2505, (IF: 2.536)
- IJ16. D. Efimov, E. Fridman, A. Polyakov, W. Perruquetti, J.-P. Richard, On design of interval observers with sampled measurement, **Systems & Control Letters**, 2016, 96(10), p. 158-164 (IF: 2.550)
- IJ17. A. Polyakov, D. Efimov, E. Fridman, W. Perruquetti, Homogenous Distributed Parameters Systems, **IEEE Transactions on Automatic Control**, 2016, 61(11), p. 3657 - 3662 (IF: 4.270)
- IJ18. H. Rios, D. Efimov, A. Polyakov, W. Perruquetti, Homogeneous Time-Varying Systems: Robustness Analysis, **IEEE Transactions on Automatic Control**, 2016, 61(12), p. 4075 - 4080, (IF: 4.270)
- IJ19. D. Efimov, E. Fridman, A. Polyakov, W. Perruquetti, J.-P. Richard, Linear interval observers under delayed measurements and delay-dependent positivity, **Automatica**, 2016, 72(10), p. 123-130, (IF: 5.451)
- IJ20. M. Mera, A. Polyakov, W. Perruquetti, Finite-time attractive ellipsoid method: implicit Lyapunov function approach, **International Journal of Control**, 2016, 89(6), p. 1079-1090, (IF: 2.208)
- IJ21. D. Efimov, A. Polyakov, L. Fridman, W. Perruquetti, J.-P. Richard, Delayed sliding mode control, **Automatica**, 2016, 64(2), p. 37-43, (IF: 5.451)
- IJ22. A. Polyakov, D. Efimov, W. Perruquetti, Robust stabilization of MIMO systems in finite/fixed time, **International Journal of Robust and Nonlinear Control**, 2016, 26(1), p. 69-90. (IF: 3.393)
- IJ23. D. Efimov, A. Polyakov, W. Perruquetti, J.-P. Richard, Weighted Homogeneity for Time-Delay Systems: Finite-Time and Independent of Delay Stability, **IEEE Transactions on Automatic Control**, 2016, 61(1), p. 210-215,(IF: 4.270)
- IJ24. A. Polyakov, D. Efimov, W. Perruquetti, J.-P. Richard, Implicit Lyapunov-Krasovski Functionals For Stability Analysis and Control Design of Time-Delay Systems, **IEEE Transactions on Automatic Control**, 2015, 60(12), p. 3344-3349, (IF: 4.270)
- IJ25. M. Defoort, A. Polyakov, G. Demesure, M. Djemai, K. Veluvolu, Leader-follower fixed-time consensus for multi-agent systems with unknown non-linear inherent dynamics, **IET Control Theory & Applications**, 2015, 9 (14), p. 2165-2170, (IF: 2.536)
- IJ26. A. Polyakov, D. Efimov, W. Perruquetti, Finite-time and Fixed-time Stabilization: Implicit Lyapunov Function Method, **Automatica**, 2015, 51(1), p.332-340, (IF: 5.451)
- IJ27. A. Polyakov, Time-Suboptimal Feedback Design via Linear Matrix Inequalities, **Automation and Remote Control**, 2015, 76 (5), *Special Issue Dedicated to 80th Anniversary of Prof. Boris T. Polyak*
- IJ28. D. Efimov, A. Polyakov, J.-P. Richard, Interval Observer Design for Estimation and Control of Time-Delay Descriptor Systems, **European Journal of Control**, 2015, 23 (5), pp.26-35, (IF: 0.792)
- IJ29. A. Polyakov, L. Fridman, Stability Notions and Lyapunov Functions of Sliding Mode Systems, **Journal of the Franklin Institute**, 2014, 351(4), p. 1831-1865, (IF: 3.139).

- IJ30. D. Efimov, A. Polyakov, E. Fridman, W. Perruquetti, J.-P. Richard, Comments on Finite-Time Stability of Time Delay Systems, **Automatica**, 2014, 50(7), p. 1944-1947, (IF: 5.451).
- IJ31. V. Azhmyakov, A. Polyakov, A. Poznyak, Consistent approximations and variational description of some classes of sliding mode control processes, **Journal of The Franklin Institute**, 2014, 351(4), P. 1964-1981, (IF: 3.139)
- IJ32. E. Bernuau, D. Efimov, W. Perruquetti and A. Polyakov, On Homogeneity and Its Application in Sliding Mode Control, **Journal of the Franklin Institute**, 2014, 351(4), p. 1866-1901, (IF: 3.139)
- IJ33. A. Polyakov, D. Efimov, W. Perruquetti, J.-P. Richard, Output Stabilization of Time-Varying Input Delay Systems Using Interval Observation Technique, **Automatica**, 2013, 49(11), p. 3402-3410, (IF: 5.451)
- IJ34. E. Bernuau, A. Polyakov, D. Efimov and W. Perruquetti, Verification of ISS, iISS and IOSS properties applying weighted homogeneity, **System and Control Letters**, 2013, 62(12), p. 1159-1167, (IF: 2.550)
- IJ35. A. Polyakov, Nonlinear feedback design for fixed-time stabilization of Linear Control Systems, **IEEE Transactions on Automatic Control**, 2012, 57(8), p. 2106-2110, (IF: 4.270)
- IJ36. A. Polyakov, A. Poznyak, Unified Lyapunov function for a finite-time stability analysis of relay second-order sliding mode control systems, **IMA Journal of Mathematical Control and Information**, 2012, 29(4), p. 529-550, (IF: 0.967).
- IJ37. A. Polyakov, Minimization of disturbances effects in time delay predictor-based sliding mode control systems, **Journal of The Franklin Institute**, 2012, 349(4), p. 1380-1396, (IF: 3.139)
- IJ38. A. Polyakov, A. Poznyak, Invariant Ellipsoid Method for Minimization of Unmatched Disturbances Effects in Sliding Mode Control, 2011, **Automatica**, 47(7), p. 1450-1454, (IF: 5.451)
- IJ39. A. Poznyak, A. Polyakov, V. Strygin, Analysis of finite-time convergence by the method of Lyapunov functions in systems with second-order sliding modes, **Journal of Applied Mathematics and Mechanics**, 2011, 75(3), p. 289-303, (IF: 0.307).
- IJ40. S. Gonzalez-Garcia, A. Polyakov, A. Poznyak, Using the Method of Invariant Ellipsoids for Linear Robust Output Stabilization of Spacecraft, **Automation and Remote Control**, 2011, 72(3), p.540-555, (IF: 0.265).
- IJ41. A. Polyakov, A. Poznyak, Method of Lyapunov Function for Systems with Higher-order Sliding Modes, **Automation and Remote Control**, 2011, 72(5), p.944-963, (IF: 0.246).
- IJ42. A. Polyakov, On Practical Stabilization of the Systems with Relay Delay Control, **Automation and Remote Control**, 2010, 71(11), p. 2331-2344, (IF: 0.265).
- IJ43. A. Polyakov, A. Poznyak, Lyapunov Function Design for Finite-Time Convergence Analysis: "Twisting" Controller for Second Order Sliding Mode Realization, **Automatica**, 2009. 45(2), , p. 444-448, (IF: 5.451)
- IJ44. V. Azmyakov, R. Galvan-Guerra, A. Polyakov, On the Method of Dynamic Programming for Linear-Quadratic Problems of Optimal Control in Hybrid Systems, **Automation and Remote Control**, 2009, 70(5), p. 787-799, (IF: 0.265).

- IJ45. A. Polyakov, A. Poznyak, Reaching Time Estimation for "Super-Twisting" Second Order Sliding Mode Controller via Lyapunov Function Designing, **IEEE Transaction on Automatic Control**, 2009, 54(8), p. 1951-1955, (IF: 4.270)
- IJ46. M. Yefremov, A. Polyakov, V. Strygin, An active stabilization algorithm for a spacecraft with viscoelastic elements under uncertainties, **Journal of Applied Mathematics and Mechanics**, 2006, 70(5), p. 800-811. (IF: 0.307).
- IJ47. M. Yefremov, A. Polyakov, V. Strygin, A new tracking algorithm for certain mechanical systems, **Journal of Applied Mathematics and Mechanics**, 2005, 69(1), p. 27-37. (IF: 0.307).
- IJ48. L. Fridman, V. Strygin, A. Polyakov, Nonlocal Stabilization via Delayed Relay Control Rejecting Uncertainty in a Time Delay, **International Journal of Robust and Nonlinear Control**, 2004, 14(1), p.15-37, (IF: 3.393)
- IJ49. P. Acosta, A. Polyakov, L. Fridman, V. Strygin. Estimation of Amplitude of Oscillations in Sliding Mode Systems Caused by Time Delay, **Asian Journal of Control**, 2004, 6(4), p.513-519 (IF: 1.034).
- IJ50. L. Fridman, V. Strygin, A. Polyakov, Stabilization of Oscillations Amplitudes via Relay Delay Control, **International Journal of Control**, 2003, 76(8), p. 770-780, (IF: 2.208)

II. International Conference Papers (72 papers)

- IC1. A. Polyakov, Quadratic-like Stability of Nonlinear Homogeneous Functions, **56th IEEE Conference on Decision and Control**, 12-15 December 2017.
- IC2. A. Polyakov, L. Hetel, C. Fiter, Relay Control Design using Attractive Ellipsoids Method, **56th IEEE Conference on Decision and Control**, 12-15 December 2017.
- IC3. T. Sanchez, D. Efimov, A. Polyakov, J. Moreno, W. Perruquetti, A homogeneity property of a class of discrete-time systems, **56th IEEE Conference on Decision and Control**, 12-15 December 2017.
- IC4. A. Polyakov, D. Efimov, E. Fridman, W. Perruquetti, J.-P. Richard, On Hyper Exponential Stabilization of Linear State-Delay Systems, **56th IEEE Conference on Decision and Control**, 12-15 December 2017.
- IC5. A. Polyakov, J.-M. Coron, L. Rosier, On Boundary Finite-Time Feedback Control for Heat Equation, **IFAC World Congress**, 9-14 July 2017.
- IC6. M. Feingesicht, A. Polyakov, F. Kerherve, J.-P. Richard, Sliding Mode Control for Turbulent Flows, **IFAC World Congress**, 9-14 July 2017.
- IC7. M. Feingesicht, A. Polyakov, F. Kerherve, J.-P. Richard, Model-Based Feedforward Optimal Control applied to a Turbulent Separated Flow, **IFAC World Congress**, 9-14 July 2017.
- IC8. T. Kharkovskaia, D. Efimov, E. Fridman, A. Polyakov, J.-P. Richard, On design of interval observers for parabolic PDEs, **IFAC World Congress**, 9-14 July 2017.

- IC9. D. Efimov, A. Polyakov, A. Levant, W. Perruquetti, Switched gain differentiator with fixed-time convergence, **IFAC World Congress**, 9-14 July 2017.
- IC10. S. Zhuk, A. Polyakov, O. Nakonechnyi, Sliding Mode Control Design for Linear Evolution Equations with Uncertain Measurements and Exogenous Perturbations, **IFAC World Congress**, 9-14 July 2017.
- IC11. A. Polyakov, J.-M. Coron, L. Rosier, On Finite-Time Stabilization of Evolution Equations: A Homogeneous Approach, **IEEE Conference on Decision and Control**, Las Vegas, USA, 12-14 December 2016.
- IC12. D. Efimov, A. Polyakov, A. Levant, W. Perruquetti, Discretization of asymptotically stable homogeneous systems by explicit and implicit Euler methods, **IEEE Conference on Decision and Control**, Las Vegas, USA, 12-14 December 2016.
- IC13. A. Levant, D. Efimov, A. Polyakov, W. Perruquetti, Stability and Robustness of Homogeneous Differential Inclusions, **IEEE Conference on Decision and Control**, Las Vegas, USA, 12-14 December 2016.
- IC14. D. Efimov, A. Levant, A. Polyakov, W. Perruquetti, On Acceleration of a Class of Asymptotically Stable Homogeneous Systems, **IEEE Conference on Decision and Control**, Las Vegas, USA, 12-14 December 2016.
- IC15. F. Lopez-Ramirez, D. Efimov, A. Polyakov, W. Perruquetti, Fixed-Time Output Stabilization of a Chain of Integrators, **IEEE Conference on Decision and Control**, Las Vegas, USA, 12-14 December 2016.
- IC16. T. Kharkovskaya, D. Efimov, A. Polyakov, J.-P. Richard, Interval observers for PDEs: approximation approach, **NOLCOS**, Monterey, USA, 22-25 August 2016
- IC17. K. Zimenko, D. Efimov, A. Polyakov, W. Perruquetti, Time-delay Robustness Analysis for Systems with Negative Degree of Homogeneity, **NOLCOS**, Monterey, USA, 22-25 August 2016
- IC18. K. Zimenko, A. Polyakov, D. Efimov, A. Kremlev, Frequency Domain Analysis of Control System Based on Implicit Lyapunov Function, **European Control Conference**, Aalborg, Denmark, 29 June-1 July 2016
- IC19. M. Feingesicht, C. Raibaud, A. Polyakov, F. Kerherve, J.-P. Richard, A bilinear input-output model with state-dependent delay for separated flow control, **European Control Conference**, Aalborg, Denmark, 29 June-1 July 2016
- IC20. F. Lopez-Ramirez, A. Polyakov, D. Efimov, W. Perruquetti, Finite-Time and Fixed-Time Observers Design via Implicit Lyapunov Function, **European Control Conference**, Aalborg, Denmark, 29 June-1 July 2016
- IC21. D. Efimov, E. Fridman, A. Polyakov, W. Perruquetti, J.P. Richard, On Design of Sampled-Data Interval Observers, **European Control Conference**, Aalborg, Denmark, 29 June-1 July 2016
- IC22. A. Polyakov, L. Hetel, On Finite-Time Stabilization Via Relay Feedback Control, **IEEE Conference on Decision and Control**, 2015, Osaka, Japan, p. 4098 - 4102

- IC23. A. Polyakov, Y. Orlov, H. Oza, S. Spurgeon, Robust Finite-time Stabilization and Observation of a Planar System Revisited , **IEEE Conference on Decision and Control**, 2015, Osaka, Japan, p. 5689-5694
- IC24. K. Zimenko, A. Polyakov, D. Efimov, Stabilization of Chain of Integrators with Arbitrary Order in Finite-Time , **IEEE Conference on Decision and Control**, 2015, Osaka, Japan, p. 4637 - 4641
- IC25. B. Brogliato, A. Polyakov, Globally Stable Implicit Euler Time-Discretization of a Nonlinear Single-Input Sliding-Mode Control System, **IEEE Conference on Decision and Control**, 2015, Osaka, Japan, p. 5426 - 5431
- IC26. M. Mera, A. Polyakov, W. Perruquetti, G. Zheng, Finite-Time Attractive Ellipsoid Method Using Implicit Lyapunov Functions, **IEEE Conference on Decision and Control**, 2015, Osaka, Japan, p. 6892-6896
- IC27. A. Polyakov, D. Efimov, E. Fridman, W. Perruquetti, Homogeneous Evolution Equation in a Banach Space, **European Control Conference**, 2015, Linz, Austria, p.2469-2474
- IC28. S. Zhuk, A. Polyakov, Output-Based Sliding Mode Control Design for Linear Plants with Multiplicative Disturbances: The Minimax Approach, **European Control Conference**, 2015, Linz, Austria, p. 227-282
- IC29. D. Efimov, A. Polyakov, E. Fridman, W. Perruquetti, J.-P. Richard, Delay-Dependent Positivity: Application to Interval Observers, **European Control Conference**, 2015, Linz, Austria, p. 2079-2083
- IC30. D. Efimov, A. Polyakov, L. Fridman, W. Perruquetti, J.-P. Richard, A Note on Continuous Delayed Sliding Mode Control, **European Control Conference**, 2015, Linz, Austria, p. 2401-2406
- IC31. A. Polyakov, D. Efimov, W. Perruquetti, J.-P. Richard, Implicit Lyapunov-Krasovski Functions for Time-Delay Systems, **IEEE Conference on Decision and Control**, 15-17 December 2014, Los Angeles, USA, .
- IC32. A. Polyakov, D. Efimov, W. Perruquetti, J.-P. Richard, Implicit Lyapunov-Krasovski Functionals for time delay systems, **IEEE Conference on Decision and Control**, 15-17 December 2014, Los Angeles, USA, 2014, p. 1191-1196.
- IC33. D. Efimov, A. Polyakov, W. Perruquetti, J.-P. Richard, Stability Analysis for Nonlinear Time-Delay Systems Applying Homogeneity, **IEEE Conference on Decision and Control**, 15-17 December 2014, Los Angeles, USA, p. 37-42.
- IC34. A. Polyakov, I. Chairez, A New Homogeneous Quasi-Continuous Second Order Sliding Mode Control, **Latinamerican Congress on Automatic Control**, 14-17 October 2014, Cancun, Mexico.
- IC35. A. Polyakov, Discontinuous Lyapunov Functions for Nonasymptotic Stability Analysis, **IFAC World Congress**, 24-29 August 2014, Cape Town, South Africa, p. 5455-5460.
- IC36. A. Polyakov, J.-P. Richard, Suboptimal LMI-based Solution of Minimum Time Control Problem, **IFAC World Congress**, 24-29 August 2014, Cape Town, South Africa, p. 2475-2480.
- IC37. S. Zhuk, A. Polyakov, On Output-based Sliding Mode Control Design Using Minimax Observer, **13th International Workshop on Variable Structure Systems**, 29 June-2 July 2014, Nantes, France.

- IC38. M. Kryachkov, A. Polyakov, Graph-based field automata for modeling of sliding mode systems, **13th International Workshop on Variable Structure Systems**, 29 June-2 July 2014, Nantes, France.
- IC39. A. Polyakov, D. Efimov, W. Perruquetti, Sliding Mode Control Design for MIMO Systems: Implicit Lyapunov Function Approach, **European Control Conference**, 24-27 June 2014, Strasburg, France, p. 2612-2617.
- IC40. A. Polyakov, D. Efimov, W. Perruquetti, Homogeneous Differentiator Design using Implicit Lyapunov Function Method, **European Control Conference**, 24-27 June 2014, Strasburg, France, p. 288-293.
- IC41. D. Efimov, A. Polyakov, J.-P. Richard, Interval estimation for systems with time delays and algebraic constraints, **European Control Conference**, 24-27 June 2014, Strasburg, France, p.678-683.
- IC42. S. Govindaswamy, L. Hetel, A. Polyakov, T. Floquet, On relay control for discrete time systems using linear matrix inequalities, **European Control Conference**, 24-27 June 2014, Strasburg, France, p. 2225-2230.
- IC43. A. Polyakov, A. Poznyak, J.-P. Richard, Robust Output Stabilization of Time-Varying Input Delay Systems using Attractive Ellipsoid Method, **IEEE Conference on Decision and Control**, 10-13 December 2013, Florence, Italy, p. 934-939.
- IC44. S. Parsegov, A. Polyakov, P.S. Scherbakov, Fixed-Time Consensus Algorithm for Multi-Agent Systems with Integrator Dynamics, **4th IFAC Workshop on Distributed Estimation and Control in Networked Systems**, 25-26 September 2013, Koblenz, Germany, p. 110-115.
- IC45. A. Polyakov, D. Efimov, W. Perruquetti, Finite-time Stabilization Using Implicit Lyapunov Function Technique, **9th Symposium on Nonlinear Control Systems**, Toulouse, France, 4-6 September 2013, p. 140-145.
- IC46. A. Polyakov, D. Efimov, W. Perruquetti, J.-P. Richard, Interval Observer Approach to Output Stabilization of Time-Varying Input Delay System, **European Control Conference**, Zurich, 17-19 July 2013, p. 4412- 4417.
- IC47. E. Bernuau, D. Efimov, W. Perruquetti, A. Polyakov, On an extension of homogeneity notion for differential inclusions, **European Control Conference**, Zurich, 17-19 July 2013, p. 2204-2209.
- IC48. E. Bernuau, A. Polyakov, D. Efimov, W. Perruquetti, On ISS and iISS properties of homogeneous systems, **European Control Conference**, 17-19 July 2013, Zurich, Switzerland, p. 1705-1710.
- IC49. E. Bernuau, A. Polyakov, D. Efimov, W. Perruquetti, Robustness of finite-time stability property for sliding modes, **5th Symposium on System Structure and Control**, 4-6 February 2013, Grenoble, France, p. 391-396.
- IC50. S. Parsegov, A. Polyakov, P. Shcherbakov, Nonlinear Fixed-Time Control Protocol for Uniform Allocation of Agents on a Segment, **IEEE Conference on Decision and Control**, 10-13 December 2012, Maui, Hawaii, USA, p. 7732-7737.
- IC51. M. Mera, A. Poznyak, V. Azhmyakov, A. Polyakov, A Robust Dynamic Controller for a Class of Nonlinear Systems with Sample-Data Outputs, **9th International Conference on Electrical Engineering, Computing Science and automatic Control**, 26-28 September 2012, Mexico City, p. 1-7.
- IC52. A. Polyakov, Fixed-Time Stabilization via Second Order Sliding Mode Control, **Analysis & Design of Hybrid Systems**, 6-8 June 2012, Eindhoven, Netherlands, P. 254 - 258.
- IC53. A. Polyakov, Fixed-Time Stabilization of Linear Systems via Sliding Mode Control, **12th International Workshop on Variable Structure Systems**, 12-14 January 2012, Mumbai, India, P. 1- 6.

- IC54. A. Polyakov, On Settling Time Function and Stability of Vector Relay Systems, **12th International Workshop on Variable Structure Systems**, 12-14 January 2012, Mumbai, India, P. 149-154.
- IC55. A. Polyakov, A. Poznyak, The Lyapunov Function Design for the Stability Analysis of the "Italian Version" of the Second Order Sliding Mode Controllers, **IFAC World Congress**, 28 August - 2 September 2011, Milan, Italy, P.5866-5871.
- IC56. A. Polyakov, Invariant Ellipsoid Method for Time-Delayed Predictor-Based Sliding Mode Control System, **11th International Workshop on Variable Structure Systems**, 26-28 June 2010, Mexico D.F., P. 95-99.
- IC57. M. Kryachkov, A. Polyakov, V. Strygin, Finite-time stabilization of an integrator chain using only signs of the state variables, **11th International Workshop on Variable Structure Systems**, 26-28 June 2010, Mexico D.F., P. 510-515.
- IC58. S. Gonzalez-Garcia, A. Polyakov, A. Poznyak, Linear feedback spacecraft stabilization using the method of invariant ellipsoids, **41st Southeastern Symposium on System Theory**, Tullahoma, TN, USA, March 15-17, 2009, P.195-198.
- IC59. S. Gonzalez-Garcia, A. Polyakov, A. Poznyak, Output Linear Controller for a Class of Nonlinear Systems Using the Invariant Ellipsoid Method, **American Control Conference**, St. Louis, Missouri, USA, 10-12 June 2009, P. 1160-1165.
- IC60. A. Polyakov, A. Poznyak, Minimization of the Unmatched Disturbances in the Sliding Mode Control Systems via Invariant Ellipsoid Method, **IEEE Multi Conference on Systems and Control**, Saint Petersburg, Russia, 8-10 July 2009, P. 1122-1127.
- IC61. A. Polyakov, A. Poznyak, Lyapunov Function Design for Finite-Time Convergence Analysis of "Twisting" and "Super-Twisting" Second Order Sliding Mode Controllers, **10th IFAC Workshop on Variable Structure Systems**, 8-10 June 2008, Antalya, Turkey, p. 153-158.
- IC62. S. Gonzalez-Garcia, A. Polyakov, A. Poznyak, Output linear feedback for a class of nonlinear systems based on the invariant ellipsoid method, **5th International Conference on Electrical Engineering, Computing Science and Automatic Control**, 12 - 14 November 2008, Mexico- City, P.7-12.
- IC63. A. Polyakov, Practical Stabilization via Relay Delayed Control, **IEEE Conference on Decision and Control**, 8-11 December 2008, Cancun, Mexico, P. 5306-5311.
- IC64. S. Gonzalez-Garcia, A. Polyakov, A. Poznyak, Robust Stabilization of a spacecraft with flexible elements using invariant ellipsoid technique, **5th International Conference on Electrical Engineering, Computing Science and Automatic Control**, 12 - 14 November 2008, Mexico- City, P. 97-101.
- IC65. L. Fridman, V. Strygin, A. Polyakov, Semiglobal Stabilization via Relay Controller with Uncertain Time Delay, **IEEE Conference on Decision and Control**, Maui, Hawaii, 9-12 December 2003, p.4074-4079.
- IC66. L. Fridman, P. Acosta, A. Polyakov, V. Strygin. Amplitude Estimation of Oscillations in Delayed Relay Systems, **American Control Conference**, Denver, Colorado, USA, 4-6 June 2003, pp. 2676-2681.
- IC67. L. Fridman, V. Strygin, A. Polyakov. Delayed relay nonlocal stabilization suppressing uncertainty in a time delay. **IFAC Symposium on Robust Control Design**, Milan, 25-27 June 2003, pp.389-394.
- IC68. L. Fridman, V. Strygin, A. Polyakov, Nonlocal Stabilization via Delay Relay Control Gain Adaptation, **American Control Conference**, Anchorage, Alaska, 8-10 May 2002, pp. 2221-2226.
- IC69. L. Fridman, V. Strygin, A. Polyakov, Algorithm of Nonlocal Stabilization via Delayed Control Gain Adaptation, **IEEE Workshop on Variable Structure Systems**, Sarajevo, 17-19 July 2002, pp. 47-56.

- IC70. L. Fridman, V. Strygin, A. Polyakov, Stabilization of Oscillations Amplitudes via Relay Delay Control, **IEEE Conference on Decision and Control**, Orlando, Florida, 4-7 December 2001, pp.3704-3709.
- IC71. L. Fridman, P. Acosta, A. Polyakov, Robust eigenvalue assignment for uncertain delay control systems, **IFAC Workshop on Time Delay Systems**, Santa Fe, New Mexico, USA, 8-10 December 2001, pp.239-244.
- IC72. L. Fridman, V. Strygin, A. Polyakov, Relay Control of Oscillations Amplitudes for Systems with Delay, **IFAC Workshop on Time Delay Systems**, Santa Fe, New Mexico, USA, 8-10 December 2001, pp.245-248.

III. Books and Chapters (1 book and 3 chapters)

- B1. A. Poznyak, A. Polyakov, V. Azhmyakov, **Attractive Ellipsoids in Robust Control**, Birkhauser, 2014.

- B2. A. Polyakov, Fast Control Systems: Nonlinear Approach, **New Perspectives and Applications of Modern Control Theory** (Editors: J. B. Clempner and W. Yu). - Springer, 2017. - pp. 287-316.

- B3. S. Zhuk, A. Polyakov, Minimax Observer for Sliding Mode Control Design, **Recent Trends in Sliding Mode Control** (Editors L. Fridman, J.-P. Barbot, F. Plestan). - London, IET, 2016. - pp. 119-130.

- B4. E. Bernuau, D. Efimov, W. Perruquetti, A. Polyakov, Homogeneity of Differential Inclusions, **Recent Trends in Sliding Mode Control** (Editors L. Fridman, J.-P. Barbot, F. Plestan). - London, IET, 2016. - pp. 103-118.

- B5. L. Fridman, V. Strygin, A. Polyakov, Semiglobal Stabilization of Linear Uncertain System via Delayed Relay Control, **Variable Structure Systems : from Principles to Implementation** (Editors A. Sabanovic, L. Fridman and S. Spurgeon). - London, 2004. - pp. 377-400.

+ more than 20 publications in Russian (both Control Theory and Computer Sciences)