

Nom : POLYAKOV

Last name

Prenom : Andrey

First name

CURRIVULUM VITAE

Formulaire 1 — Curriculum Vitæ détaillé

Form 1 — Detailed Curriculum Vitæ

Nom : POLYAKOV

Last Name

Prénom : Andrey

First Name

Date et lieu de naissance : 08/01/1980, Voronezh (Russia)

Date and place of birth

N° de téléphone : (+33) 6 46 24 20 30

Phone

Adresse électronique : andrey.polyakov@inria.fr

E-mail

Page Web personnelle : <http://researchers.lille.inria.fr/~polyakov/>

Web page

1) Diplômes / *Diplomas*

Doctorat(s) / *Ph.D.(s)*

Intitulé : Control of neutral and unstable plants using relay delayed feedback control

Title

Date de soutenance : 15/12/2005

Date of the defense of the Ph.D.

Établissement ayant délivré la thèse : Voronezh State University, Russia

Granting institution

Entité d'accueil (laboratoire, équipe, etc.) pour la préparation de la thèse : Dep. Computational Mathematics

Host entity (laboratory, team, etc.) for the preparation of the Ph.D.

Master ou équivalent / *Master's or equivalent*

Intitulé : Control of the systems with relay feedback

Title

Date : 21.06.2003

Date

Établissement ayant délivré le diplôme : Voronezh State University, Russia

Granting institution

Organisme où s'est déroulé le stage : Faculty of Applied Mathematics and Mechanics

Institution where the training course took place

Autres diplômes / *Other diplomas:*

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2) Parcours Professionnel / *Professional history*

2.1) Situation professionnelle actuelle / *Current professional status*

Statut et fonction : CR Inria (Researcher)

Position and statute

Centre de recherche Inria : Lille – Nord Europe

Inria Research Center

Équipe-projet de recherche : NON-A project-team

Project-team

2.2) Expériences professionnelles antérieures / *Previous professional experiences*

Dates début <i>Start</i>	Dates fin <i>End</i>	Établissements <i>Institutions</i>	Fonctions et statuts ² <i>Positions and status²</i>
17.06.2010	01.10.2013	Institute of Control Sciences, Russian Academy of Sciences	Leader Researcher - permanent (<i>French analog is DR</i>)
01.09.2008	16.06.2010	Voronezh State University, Russia	Associate Professor - permanent
15.08.2007	15.08.2008	CINVESTAV-IPN, Mexico	Postdoc - temporary
01.09.2004	14.08.2007	Voronezh State University, Russia	Lecturer - permanent

3) Membre des comités / *Member of committees*

- Editor of International Journal of Robust and Nonlinear Control, 2014-Now
- Editor of Journal of the Franklin Institute, 2014-2016
- Editor of Journal of Optimization Theory and Applications (JOTA), 2014-Now
- Editor of Automation and Remote Control, 2015-Now
- Member of IFAC Technical Committee: 2.3. Nonlinear Control Systems, 2012-Now

4) Prix / *Awards*

- Letov Prize, Institute of Control Sciences, Russian Academy of Sciences, 2011
- Outstanding Reviewer of *Automatica* 2015-2016

5) Projets de recherche / *Research projects*

- ANR Finite4SoS (2015-2019): " Commande et estimation en temps fini pour les Systemes de Systemes"
- ANR ROCC-SYS (2014-2018): "Robust Control of Cyber-Physical Systems"
- ANR Chaslim (2011-2015) : "Chattering-Free Sliding Modes"
- CPER DATA, Project "ControlHub"
- CPER ELSAT, Project "CONTRATECH"
- ADT "SEEC", Inria

6) Conférences invitées / *Invited Talks*

- "Active Flow Control: Sliding Mode Control Approach", Workshop on Active Drag Reduction Aachen, Germany, 15-16 March 2018
- "Sliding mode control of flow separation", 2nd Workshop on Machine Learning Control, Valenciennes, France, July 5th-6th , 2017
- "On generalized homogeneity and time-constrained stabilization of evolution systems", Seminar iCode, L2S, CentraleSupélec, Gif-Sur-Yvette, France, 25 April 2017
- "Robust Stabilization with Time Constraints: Implicit Lyapunov Function Approach", International Conference "Optimization And Applications in Control and Data Science" on the occasion of Boris Polyak's 80th birthday, Moscow, Russia, 13-15 May 2015

7) Enseignement / *Teaching*

1. (Co)-Supervision of Post-Docs

- Manuel Mera (07.2014-07.2015)
- Nicolas Espitia (10.2017-now)
- Tonametl Sanchez (10.2017-now)

2. (Co)-Supervision of PhD Students

- Maxime Feingesicht (01.2015-Now: The date of the defense is 11.12.2017; Co-supervisors: Jean-Pierre Richard and Franck Kerherve)
- Francisco Lopez Ramirez (10.2015-Now; Co-supervisors: Wilfrid Perruquetti, Denis Efimov)
- Nicolas Vauchel (10.2017-Now; Co-supervisors: Tomas Gomez, Olivier Renard)
- Youness Braidiz (10.2017-Now; Co-supervisors: Wilfrid Perruquetti, Denis Efimov)
- Siyuan Wang (10.2017-Now; Co-supervisors: Wilfrid Perruquetti, Denis Efimov)

I was also involved (and still involved) in supervision of PhD students in Mexico and Russia

- Nadhynee Martinez Fonesca (12.2015-Now; UPIBI-IPN, Mexico; Co-supervisor: Dr. Isaac Chairez)
- Konstantin Zimenko (10.2015-Now, ITMO University, Russia; Co-supervisors: Artem Kremlev; Denis Efimov)
- Tatyana Kharkovskaya (10.2016-Now, ITMO University, Russia)
- Sergei Parsegov (2010-2013; Institute of Control Sciences of Russian Academy of Sciences; Supervisor: Pavel Shcherbakov)
- Mikhail Kryachkov (2009-2012; Voronezh State University; Supervisor: Vadim Strygin)
- Salvador Gonzelez Garcia (2006-2009; CINVERAV-IPN, Mexico; Supervisor: Alexander Poznyak)

3. Supervision of Masters Students

- Erwin Jezequel (Internship, 2018, Centrale Lille)
- Marc Sanmillan (Internship, Centrale Lille)
- Dmitrii Kondratovich (2012; Institute of Control Sciences of Russian Academy of Sciences)
- Elena Maslennikova (2009, Voronezh State University)
- Aleksej Baushev (2009, Voronezh State University)
- Andrey Solov'ev (2009, Voronezh State University)
- Artem Batuev (2009, Voronezh State University)
- Evgenii Orzaev (2009, Voronezh State University)
- Sergej Kosinov (2007, Voronezh State University)
- Leonid Kukushkin (2007, Voronezh State University)
- Konstantin Chernyshev(2007, Voronezh State University)

4. The courses were given in Voronezh State University (2004-2007 and 2008-2010; more than 3000 hours):

- Algebra & Analytical Geometry (for bachelors of 1st year);
- Programming Languages and Algorithms (for bachelors of 1st and 2nd years);

- Algorithms for Sparse Matrices (for bachelors of 3rd year);
- Mathematical Software (for bachelors of 3th year);
- Algorithms of Computer Graphics (for bachelors of 4th year);
- Relational Database Management Systems (for bachelors of 4th year);
- Computational Mathematics (for bachelors of 3rd and 4th years);
- Internet Programming (for masters of 1st year);
- Linear Matrix Inequalities (for masters of 2nd year);

5. Tutorial Courses

- "Lyapunov Function Method for Nonlinear and Discontinuous Systems", 6th IEEE International Conference on Electrical Engineering, Computing Science and Automatic Control (CCE-2009), November 10-13, 2009, Toluca, Mexico. (6 hours)
- Tutorial course for Traditional Whole-Russian School "Control, Information and Optimization" in 2011 (2 hours; title: "Lyapunov Function Design for High Order Sliding Modes") and in 2015 (4 hours; "Stability Notions and Lyapunov Functions for Sliding Mode Control Systems")
- Tutorial course "Stability Notions and Lyapunov Functions for Sliding Mode Control Systems" (Seminar of NON-A/SyNeR teams, Inria, 20 and 21 October 2013, 2 hours)

8) Publications / *Publications*

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, Homogeneous 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 (76 papers)

- IC1. K. Zimenko, A. Polyakov, D. Efimov, Finite-Time and Fixed-Time Stabilization for Integrator Chain of Arbitrary Order, **European Control Conference**, 2018.
- IC2. K. Zimenko, A. Polyakov, D. Efimov, Generalized Feedback Homogenization and Stabilization of Linear MIMO Systems, **European Control Conference**, 2018.
- IC3. F. Lopez-Ramirez, D. Efimov, A. Polyakov, W. Perruquetti, On Necessary and Sufficient Conditions for Fixed-Time Stability of Continuous Autonomous Systems, **European Control Conference**, 2018.
- IC4. K. Zimenko, D. Efimov, A. Polyakov, A. Kremlev, Control of Systems with Arbitrary Bounded Input Delay Using Implicit Lyapunov Function Technique, **European Control Conference**, 2018.

- IC5. A. Polyakov, Quadratic-like Stability of Nonlinear Homogeneous Functions, **56th IEEE Conference on Decision and Control**, 12-15 December 2017.
- IC6. A. Polyakov, L. Hetel, C. Fiter, Relay Control Design using Attractive Ellipsoids Method, **56th IEEE Conference on Decision and Control**, 12-15 December 2017.
- IC7. 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.
- IC8. 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.
- IC9. A. Polyakov, J.-M. Coron, L. Rosier, On Boundary Finite-Time Feedback Control for Heat Equation, **IFAC World Congress**, 9-14 July 2017.
- IC10. M. Feingesicht, A. Polyakov, F. Kerherve, J.-P. Richard, Sliding Mode Control for Turbulent Flows, **IFAC World Congress**, 9-14 July 2017.
- IC11. 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.
- IC12. 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.
- IC13. D. Efimov, A. Polyakov, A. Levant, W. Perruquetti, Switched gain differentiator with fixed-time convergence, **IFAC World Congress**, 9-14 July 2017.
- IC14. 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.
- IC15. 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.
- IC16. 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.
- IC17. 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.
- IC18. 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.

- IC19. 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.
- IC20. T. Kharkovskaya, D. Efimov, A. Polyakov, J.-P. Richard, Interval observers for PDEs: approximation approach, **NOLCOS**, Monterey, USA, 22-25 August 2016
- IC21. 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
- IC22. 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
- IC23. M. Feingessicht, 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
- IC24. 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
- IC25. 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
- IC26. A. Polyakov, L. Hetel, On Finite-Time Stabilization Via Relay Feedback Control, **IEEE Conference on Decision and Control**, 2015, Osaka, Japan, p. 4098 - 4102
- IC27. 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
- IC28. 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
- IC29. 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
- IC30. 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
- IC31. A. Polyakov, D. Efimov, E. Fridman, W. Perruquetti, Homogeneous Evolution Equation in a Banach Space, **European Control Conference**, 2015, Linz, Austria, p.2469-2474
- IC32. 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
- IC33. 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

- IC34. 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
- IC35. 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, .
- IC36. 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.
- IC37. 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.
- IC38. 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.
- IC39. A. Polyakov, Discontinuous Lyapunov Functions for Nonasymptotic Stability Analysis, **IFAC World Congress**, 24-29 August 2014, Cape Town, South Africa, p. 5455-5460.
- IC40. 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.
- IC41. 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.
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