CURRICULUM VITAE

Vadim Azhmyakov

Full Professor, Dr. rer. nat. habil.
IEEE Senior Member
Señor Investigador de Colciencias (CVLAC: http://scienti.colciencias.gov.co:8081/cvlac/visualizador/generarCurriculoCv.do?cod_rh=0001551004)

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Personal Scientific Indicators

Scopus (Author ID: 57193314969)
https://www.scopus.com/authid/detail.uri?authorId=57193314969

ResearcherID (J-6247-2016)
http://www.researcherid.com/ProfileView.action?returnCode=ROUTER.Success&Init=Yes&SrcApp=CR&queryString=KG0UuZjN5Wn%252ByHPkR7Nn4mIC6VcyZsJLXCCkf%252Fcq570%253D&SID=4Bbl1Grw6GlPEWxdayy

ORCID (ORCID ID 0000-0003-3634-67856)
https://orcid.org/0000-0003-3634-6786

ResearchGate:
https://www.researchgate.net/profile/Vadim_Azhmyakov2?ev=hdr_xprf&_sg=zM02VdMcRlm7uQ3YWY1-XMgWibiNrGU_5P2y3xHENc_UtG49HFzsEO80qjuhgtNV

IEEE Xplore
http://ieeexplore.ieee.org/search/searchresult.jsp?newsearch=true&queryText=Azhmyakov

GoogleScholar:
https://scholar.google.com.co/citations?user=rjBi_8oAAAAJ&hl=es

Education

- **Postdoc/Habilitation (2006):** Mathematics, University of Greifswald (Greifswald, Germany)

  Habil Thesis Title: "*Numerically Stable Schemes for Optimal Control Problems with Constraints"*

- **PhD (1994):** Applied Mathematics, Institute of Control Sciences, the Russian Academy of Sciences (Moscow, Russia)

  PhD Thesis Title: "*Stabilization of Stochastic Control Systems"*

- **M.S. (1989):** Moscow State Technical University "N. E. Bauman", Department of Aerospace Engineering, Moscow, Russia

  Thesis Title: *"Optimal Navigation and Control of Cross-Missiles"*

Research Interests

- **Applied Mathematics:** optimal control, optimization theory, optimization of dynamic systems, numerical methods, nonlinear analysis, convex analysis, ordinary differential equations, differential inclusions, engineering mathematics, statistics, stochastic analysis, operator theory

- **Control and Systems Engineering:** hybrid, switched and discrete event dynamic systems, systems optimization, robust control, identification, control over networks, multiagent systems, robot dynamics and control, Lagrange mechanics, stochastic dynamics, smart grids, energy management systems, supply chain, systems engineering

Employment History

Since 01/02/2016: Full Professor,
Department of Basic Sciences,
Universidad de Medellin,
Medellin, Colombia

and

Full (Honorary) Professor,
Division for Automation and Robotics,
Tomsk Polytechnic University,
Tomsk, Russian Federation

07/02/2014 – 01/02/2016: Research Professor,
Faculty of Electronic and Biomedical Engineering,
Antonio Nariño University,
Neiva, Colombia

15/05/2013 – 01/02/2014: Senior Researcher in Optimization and Control,
System Analysis and Control Engineering Group, Younicos AG,
Science- and Technology Park Adlershof,
Berlin, Germany

13/07/2007 – 06/03/2013: Research Professor**,**
Mexican Center for Advanced Studies and Research
(CINVESTAV), Department of Control Automation,
México City, Mexico

01/03/2006 – 13/07/2007: Assistant Professor,
Department of Electrical Engineering, Technical University
of Berlin,
Berlin, Germany

01/06/2005 – 01/03/2006: Assistant Professor,
Department of Electrical Engineering, University of Magdeburg,
Magdeburg, Germany

16/04/1999 – 15/04/2005: Assistant Professor (with the Postdoctoral Thesis = Habilitation),
Faculty of Numerical Analysis, E.M.A. University of Greifswald,
Greifswald, Germany

16/04/1997 – 15/04/1999: Scientific Staff,
Faculty of Mathematical Statistics, University of Bayreuth,
Bayreuth, Germany

01/10/1996 – 31/12/1996: Scientific Intern,
Faculty of Mathematical Statistics, University of Bayreuth,
Bayreuth, Germany

16/11/1991 – 28/10/1994: Scientific Assistant (with the Ph.D Thesis),
Institute of Control Sciences the Russian Academy of Sciences,
Moscow, Russia

16/11/1991 – 20/07/1994: Ph.D. Student,
Institute of Control Sciences of the Russian Academy
of Sciences,
Moscow, Russia

25/03/1991 – 28/09/1991: Lecturer,
Moscow Mathematical College,
Moscow, Russia

08//08/1989 – 30/11/1990: Software Developer,
Construction - Office for Missiles Technology "KBM",
Reutov (Moscow region), Russia

Research Grants and Memberships

- **2017:** Research grant of the Association Universitaria Ibero-Americana de Postgrado (AUIP)
  Ibero-América, Spain

- **since 2016:** Senior Member, Institute of Electrical and Electronic Engineers (IEEE CSC), USA

- **since 2015:** Member of the International Federation of Automatic Control (IFAC) Technical Committee (TC 2.4) "Optimal Control",
  USA, Europe

- **since 2015:** Research Fellow ("Senior Investigator") of the Colombian Research Foundation COLCIENCIAS,
  Colombia

- **since 2014:** Member of the International Federation of Automatic Control (IFAC) Technical Committee (TC) 2.5 "Robust Control",
  USA, Europe

- **since 2015** Member of the IEEE Technical Committee on Hybrid Systems

- **2009 – 2013:** Research Fellow Sistema Nacional de Investigadores (SNI II) of the Mexican Research Foundation CONACYT,
  Mexico

- **since 2010:** Member of the Society for Industrial and Applied Mathematics (SIAM), USA

- **sicne 2010:** Member of the International Federation of Automatic Control (IFAC) Technical Committee (TC) 1.3 "Discrete Event and Hybrid Systems",
  USA

- **2008:** Research Fellow of the Max-Planck-Institute (MPI) for Dynamics of Complex Technical Systems,
  Germany

Professional Service

Journals

- **since 2016:** Associate Editor of the "Italian Journal of Pure and Applied Mathematics", Udine University Publisher, Italy
- **2014 – 2016:** Editor – in Chief of the "Inge&UAN", UAN Publisher, Colombia
- **2011 – 2013:** Associate Editor of the "Journal of The Franklin Institute", Elsevier, USA

Conferences

- Member of International Program Committee of the 9th IFAC Symposium on Robust Control Design
  (Florianopolis, Brazil, **2018**)
- Member of the International Program Committee of the 15th European Workshop on Advanced Control and Diagnosis
  (Bologna, Italy, **2018**)
- Member of the Programming Committee of the International Conference on the Finite Volume Method: Applications and Numeric
  (Beirut, Lebanon, **2018**)
- Member of the Programming Committee of the International Conference on Green Nanotechnology and Computational Fluid Dynamics
  (Cambridge, UK, **2018**)
- Member of the Organizing Committee of the 3rd IEEE Colombian Conference on Automatic Control
  (Cartagena, Colombia, **2017**)
- Member of the Programming Committee of the 14th International Conference on Electrical Engineering, Computing Science and Automatic Control
  (Mexico City, Mexico, **2017**)

- Associate Editor of the IFAC 2017 World Congress
  (Toulouse, France, **2017**)

- Regular Section Co-Chair of the IFAC 2017 World Congress
  (Toulouse, France, **2017**)

- Member of the Programming Committee of the 10th International Conference on Stability and Oscillations of Nonlinear Control Systems
  (Moscow, Russia, **2016**)

- Member of the Programming Committee of the 13th International Conference on Electrical Engineering, Computing Science and Automatic Control
  (México City, México, **2016**)

- Regular Section Chair of the 2015 American Control Conference
  (Chicago, IL, USA, **2015**)

- Regular Section Chair of the 8th IFAC Symposium on Robust Control Design
  (Bratislava, Slovak Republic, **2015**)

- Regular Section Co-Chair of the 2015 IFAC Conference on Analysis and Design of Hybrid Systems
  (Atlanta, GE, USA, **2015**)

- Member of the Programming Committee of the 12th International Conference on Electrical Engineering, Computing Science and Automatic Control
  (Mexico City, Mexico, **2016**)

- Member of the Programming Committee of the 11th International IFAC Workshop on Discrete Event Systems
  (Guadalajara, Mexico, **2012**)

- Member of the Programming Committee of the 12th International Conference on Stability and Oscillations of Nonlinear Control Systems
  (Moscow, Russia, **2012**)

- Member of the Programming Committee of the 11th International Conference on Stability and Oscillations of Nonlinear Control Systems
  (Moscow, Russia, **2010**)

- Member of the Programming Committee of the 11th International Workshop on Variable Structure Systems
  (Mexico City, Mexico, **2010**)

- The Special Session organizer on the 2010 IEEE Conference on Industrial Technology
  (Viña del Mar, Chili, **2010**)

- Member of the Programming Committee of the 10th Conference on Computing
  (Mexico City, Mexico, **2010**)

- Member of the Programming Committee of the 10th International Conference on Stability and Oscillations of Nonlinear Control Systems
  (Moscow, Russia, **2008**)

- Member of the Programming Committee of the 9th International Conference on Stability and Oscillations of Nonlinear Control Systems
  (Moscow, Russia, **2006**)

- Member of the Organizing Committee of the Workshop 2002 "Calculus of Variations, Optimal Control and Applications in Aerospace Engineering"
  (Greifswald, Germany, **2002**)

Plenary Talks

- on the Escuela Nacional de Optimizacion y de Analis Numerico
  (Aguascalientes, Mexico, **2018**)

- on the 16th IFAC Workshop on Control Applications of Optimization
  (Garmisch Partenkirchen, Germany, **2015**)

- on the 10th International Conference on Stability and Oscillations of Nonlinear Control Systems
  (Moscow, Russia, **2008**)

- on the 9th International Conference on Stability and Oscillations of Nonlinear Control Systems
  (Moscow, Russia, **2006**)

Other Activities

- Vice-Chair of the International Federation of Automatic Control (IFAC) Technical Committee 2.4 “Optimal Control” (**2015 -- 2017**)

- several journal reviews (amongst others: Automatica, IEEE Transactions on Automatic Control, SIAM Journal on Control and Optimization, Nonlinear Analysis: Hybrid Systems, International Journal of Control, International Journal

of Systems Science, European Journal of Control, Asian Journal of Control, International Journal of Robust and Nonlinear Control, IMA Journal of Mathematical Control and Information, Optimal Control: Applications and Methods, Mathematical Problems in Engineering, Discrete Event Systems, Journal of the Franklin Institute, IEEE Transactions on Control Systems Technology, Journal of Process Control, Neurocomputing, Nonlinear Analysis: Theory, Methods & Applications)

- Books review (Elsevier)

- Several Conference Proceedings review (amongst others: IEEE CDC, IEEE ACC, IEEE MSC, IEEE CCE, IEEE CERMA, IEEE CCAC, IEEE CASE, IEEE CCC, IEEE CCA, IFAC ADHS, IFAC CAO, IFAC WODES, IFAC ROCOND, IFAC IMS, IFAC WC, ECC)

Invited Research Talks

14/07/2017 – 15/07/2017:	University of Angers, Angers, France
28/05/2017:	Georgia Institute of Technology, Atlanta, USA
6/06/2016 – 10/06/2016:	University of Texas at Dallas, Dallas, USA
26/05/2016 – 28/05/2016:	Expo Congreso Automotriz Laguna, Torreon, Mexico
16/12/2015 – 28/12/2015:	Technical University of Berlin, Berlin, Germany
6/10/2015 – 15/10/2015:	Universitaet Bundeswehr Muenchen, Munich, Germany
31/10/2014 – 2/11/2014:	University of Texas at Dallas, Dallas, USA
2/10/2014:	Universidad Los Andes, Bogota, Colombia
07/03/2012 – 15/03/2012:	Technical University of Berlin, Berlin, Germany

4/06/2011 – 28/06/2011:	University EAFIT, Medellín, Colombia
15/11/2010 – 31/12/2010:	University of Alabama, Huntsville, USA
19/02/2010 – 26/02/2010:	Technical University of Berlin, Berlin, Germany
25/08/2009 – 28/08/2009:	University of Nuevo León, Monterrey, Mexico
15/06/2009 – 20/06/2009:	Georgia Institute of Technology, Atlanta, USA
07/02/2009 – 23/02/2009:	Technical University of Berlin, Berlin, Germany
01/10/2008 – 31/10/2008:	Georgia Institute of Technology, Atlanta, USA
01/09/2008 – 31/12/2008:	Technical University of Berlin and Max Planck Institute for Dynamics of Complex Technical Systems, Berlin, Germany

Current and Past Funding

01/10/1996 -- 31/12/1996 (staff):	**German Research Foundation (DFG) Project** ***"Echtzeit-Optimierung",*** University of Bayreuth, Bayreuth, Germany
16/04/1997 -- 15/04/1999 (staff):	**German Research Foundation (DFG) Project** ***"Ri 332/8-1, Robuste time series",*** University of Bayreuth, Bayreuth, Germany
01/06/2005 – 01/03/2006 (staff):	**German Research Foundation (DFG) Project** ***"Methods from Discrete Mathematics for the Synthesis and Control of Chemical Processes",*** University of Magdeburg, Magdeburg, Germany

01/03/2006 – 13/07/2007 (staff):	***European Union*** **HYCON - Project** ***"Hybrid Control Taming Heterogenety and Complexity of Networked Embedded Systems***, European Embedded Control Institute (EECI), The European Union
01/01/2011 – 31|/12/2013 (staff):	**Mexican Research Foundation (CONACYT) Project SEP/CONACYT Sciencia Basica, no. 129081** ***"Identificación y Control H_Infinito y en Modos Deslizantes en Sistemas Stocásticos con Observaciones Incompletas y Varios Tipos de Disturbios",*** Universidad Autonoma de Nuevo Leon, Monterrey, Mexico
01/01/2012 – 15/05/2013 (director):	**Mexican Research Foundation (CONACYT) Project SEP/CONACYT Sciencia Basica, no. 167482** ***"Métodos Constructivos de Optimización para Sistemas Híbridos",*** CINVESTAV, Mexico City, Mexico
01/08/2014 – 01/08/2016 (director):	**UAN VCTI Project, no. 20141100** **"*Métodos Constructivos de Optimización para Sistemas Híbridos",*** Antonio Nariño University, Neiva, Colombia
01/05/2016 – 01/05/2017 (director):	**UdeM** **"*Métodos Numericos para Optimización de Sistemas Híbridos",*** Universidad de Medellin, Medellin, Colombia

Students Supervised

PhD Students

- **Juan Pablo Fernandez Gutierrez**
  A Separation Method for Maximal Covering Location Problems,
  Universidad de Medellín,
  Medellín, Colombia (PhD in progress)

- **Nelson Castaño**
  State Estimation Based Optimal Decisions in Stochastic Systems with Parameters,
  Universidad de Medellín,
  Medellín, Colombia (PhD in progress)

- **Jose Perea Arango**
  Optimal State Estimation and Forecasting in Discrete Stochastic Systems: Application to the Gas Marketing Strategy,
  Universidad de Medellín,
  Medellín, Colombia (PhD in progress)

- **Raymundo Juárez Del Toro,**
  Estabilidad Practica de Procesos de Control Governados por DAEs Semi-Explicitas,
  CINVESTAV,
  México City, México (the doctoral exam: **13/08/2014**)

- **Rosalba Galvan-Guerra**,
  Control Optimo Lineal-Quadratico de Sistemas Hibridos: Teoria y Aplicaciones,
  CINVESTAV,
  México City, México (the doctoral exam: **28/02/2011**)

Master Studenst

- **Felix A. Miranda Villatoro,**
  Optimal LQ-based control design of a class of switched dynamic systems,
  CINVESTAV,
  Mexico City, Mexico (the final exam **29/10/2012**)

- **Arturo Enrique Gil García,**
  Aplicación del regulador LQ híbrido en problemas de control de sistemas mecánicos,
  CINVESTAV,
  Mexico City, Mexico (the final exam **13/05/2011**)

- **Carlos Manuel Pérez Rodríges,**
  Estabilidad práctica de una clase de sistema híbridos: enfoque del elipsoide atractivo,
  CINVESTAV,
  México City, México (the final exam **09/12/2010**)

- **Raymundo Juárez Del Toro,**
  Aplicación del método de la elipsoide invariante a procesos dinámicos gobernados por ecuaciones diferenciales implícitas,
  CINVESTAV,
  México City, México (the final exam **13/08/2010**)

- **Manuel Leonardo Mera Hernández,**
  Control robusto de sistemas no lineales afines al tiempo con observaciones discretas a la salida empleando el método del elipsoide invariante mínimo,
  CINVESTAV,
  México City, México (the final exam **21/08/2009**)

- **Omar González González,**
  Control robusto de sistemas no lineales afines mediante el método del elipsoide invariante mínimo,
  CINVESTAV,
  México City, México (the final exam **21/08/2009**)

- **Victor Jose Rosas Vazquez**,
  Optimizacion de sistemas monótonos,
  CINVESTAV,
  México City, México (the final exam **17/09/2008**)

- **Zizilia Zamudio Beltran**,
  Control optimo LQ para sistemas hibridos en redes,
  CINVESTAV, México, D.F., México (the final exam **12/09/2008**)

- **Regina Reiner**,
  Ansätze zur optimalen Steuerung monotoner Systeme,
  University of Greifswald,
  Greifswald, Germany (the final exam **15/06/2006**)

- **Tina Paschedag**,
  Linear Quadratische Optimierung fuer eine Klasse Hybrider Systeme,
  University of Magdeburg,
  Magdeburg, Germany (the final exam **15/06/2007**)

Teaching (in chronological order)

Moscow Mathematical College (Moscow, Russia) Courses in Russian

- ***Analysis I***
  (Semester: **01/031991 – 01/09/1991,** 60 hrs);

- ***Fourier Analysis***
  (Semester: **01/03/1991 – 01/09/1991,** 60 hrs).

University of Greifswald (Greifswald, Germany), Courses in German

- ***Numerical methods I***
  (Semester: **01/04/1999 – 30/07/1999,** 60 hrs);

- ***Numerical methods II***
  (Semester: **01/10/1999 – 01/02/2000,** 60 hrs);

- ***Numerical methods I,***
  (Semester: **01/04/2000 – 20/07/2000,** 60 hrs);

- ***Linear programming***
  (Semester: **01/04/2000 – 20/07/2000,** 60 hrs);

- ***Numerical methods II***
  (Semester: **01/10/2000 – 01/02/2001,** 60 hrs);

- ***Numerical methods I***
  (Semester: **01/04/2001 – 19/07/2001,** 60 hrs);

- ***Mathematics for economists***
  (Semester: **01/04/2001 – 19/07/2001,** 60 hrs);

- ***Numerical methods II***
  (Semester: **01/10/2001 – 03/02/2002,** 60 hrs);

- ***Function theory***
  (Semester: **04/04/2002 – 21/07/2002,** 60 hrs);

- ***Mathematics for economists***
  (Semester: **04/04/2002 – 21/07/2002,** 60 hrs);

- ***Calculus I***
  (Semester: **24/10/2002 – 04/02/2003,** 60 hrs);

- ***Numerical methods I***
  (Semester: **02/04/2003 – 21/07/2003,** 60 hrs);

- ***Constructive geometry***
  (Semester: **05/10/2003 – 02/02/2004,** 60 hrs);

- ***Optimization***
  (Semester: **01/04/2004 – 19/07/2004,** 60 hrs);

- ***Linear algebra***
  (Semester: **03/10/2004 – 01/02/2005,** 60 hrs).

- ***Operations research***
  (Semester: **03/10/2001 – 03/02/2002,** 60 hrs);

- ***Numerical methods in optimization***
  (Semester: **03/10/2002 – 02/02/2003,** 60 hrs);

- ***Nonsmooth analysis***
  (Semester: **03/04/2003 – 22/07/2003,** 60 hrs);

- ***Operations research***
  (Semester: **01/04/2004 – 20/07/2004,** 60 hrs);

- ***Operations research***
  (Semester: **03/10/2004 – 06/02/2005,** 60 hrs).

University of Magdeburg (Magdeburg, Germany) Courses in German

- ***Optimization of dynamic systems***
  (Semester: **02/10/2005 – 19/02/2006,** 60 hrs);

- ***Nonlinear control theory I***
  (Semester: **02/10/2005 – 20/02/2006,** 60 hrs).

Technical University of Berlin (Berlin, Germany) Courses in German

- ***Optimal control***
  (Semester: **02/04/2006 – 17/07/2006,** 60 hrs);

- ***Hybrid control systems***
  (Semester: **02/04/2006 –17/07/2006,** 60 hrs).

- ***Optimal control***
  (Semester: **01/04/2007 – 12/07/2007,** 60 hrs);

Mexican Center for Advanced Studies and Research CINVESTAV (Mexico D.F., Mexico) Courses in Spanish and English

- ***Theory and algorithms for Linear Matrix Inequalities (LMIs)***
  (Semester **1 – 2008: 07/01/2008 – 25/04/2008,** 30 hrs);

- ***Control theory III: adaptive and robust control***
  (Semester **2 – 2008: 12/05/2008 – 22/08/2008,** 60 hrs);

- ***Optimal control***
  (Semester **2 – 2008: 12/05/2008 – 22/08/2008,** 30 hrs);

- ***Control Theory II***: ***stability, optimal control***
  (Semester **1 – 2009: 05/01/2009 – 24/04/2009,** 60 hrs);

- ***Advances in differential equations***,
  (Semester **3 – 2009: 01/09/2009 – 19/12/2009,** 60 hrs);

- ***Control theory II: stability, optimal control***
  (Semester **1 - 2010: 11/01/2010 – 23/04/2010,** 60 hrs);

- ***Control theory III: adaptive and robust control***
  (Semester **2 – 2010: 03/05/2010 – 20/08/2010,** 60 hrs);

- ***Control theory II***: ***stability, optimal control***
  (Semester **1 – 2011: 05/01/2011 – 22/04/2011,** 60 hrs);

- ***Advanced topics in control and optimization***
  (Semester **3 – 2011: 05/09/2011 – 16/12/2011,** 30 hrs);

- ***Control theory II***: ***stability, optimal control***
  (Semester **1 – 2012: 10/01/2012 – 22/04/2012**, 60 hrs);
- ***Control theory II***: ***stability, optimal control***
  (Semester **1 – 2013: 9/01/2013 – 26/04/2013**, 60 hrs);

- ***Optimal control***
  (Semester 1 – **2013: 07.01.2013 – 26.04.2013**, 60 hrs);

Universidad Antonio Nariño (Neiva, Colombia) Courses in Spanish

- **Electrical circuits**
  (Semester **1 – 2014: 10/02/2014 – 13/06/2014,** 40 hrs);

- **Control I**
  (Semester **1 – 2014**: **10/02/2014 – 13/06/2014,** 40 hrs);

- **Control II**
  (Semester **1 – 2014**: **10/02/2014 – 13/06/2014,** 40 hrs);

- **Instrumentation III**
  (Semester **1 – 2014**: **10/02/2014 – 13/06/2014,** 40 hrs);

- **Control II**
  (Semester **II – 2014**: **01/08/2014 – 25/11/2014,** 40 hrs);

- **Project management**
  (Semester **II – 2014: 01/08/2014 – 25/11/2014,** 40 hrs);

- **Digital signal processing**
  (Semester **II – 2014: 01/08/2014 – 25/11/2014,** 40 hrs);

- **Student´s Project**
  (Semester **1 – 2015**: **10/02/2015 – 13/06/2015,** 40 hrs);

- **Digital signal processing**
  (Semester **1 – 2015**: **10/02/2015 – 13/06/2015,** 40 hrs);

- **Communication theory III**
  (Semester **1 – 2015**: **10/02/2015 – 13/06/2015,** 40 hrs);

- **Signals and Systems**
  (Semester **2 – 2015**: **03/08/2015 – 15/12/2015,** 40 hrs);

- **Robotics**
  (Semester **2 – 2015**: **03/08/2015 – 15/12/2015,** 40 hrs);

- **Calculus II**
  (Semester **2 – 2015**: **03/08/2015 – 15/12/2015,** 40 hrs);

Universidad de Medellin (Medellin, Colombia) Courses in Spanish

- **Numerical Methods**
  (Semester **1 – 2016**: **01/02/2016 – 15/06/2016,** 40 hrs);

- **Special Courses for PhD candidates**
  (Semester **1 – 2016**: **01/02/2016 – 15/06/2016,** 40 hrs);

- **Numerical Methods**
  (Semester **2 – 2016**: **01/08/2016 – 25/11/2016,** 40 hrs);

- **Special Courses for PhD candidates**
  (Semester **2 – 2016**: **01/08/2016 – 25/06/2016,** 40 hrs);

- **Special Courses for PhD candidates**
  (Semester **1 – 2017**: **01/02/2017 – 15/06/2017,** 40 hrs);

- **Special Courses for PhD candidates**
  (Semester **2 – 2017**: **01/08/2017 – 17/11/2017,** 40 hrs);

- **Special Courses for PhD candidates**
  (Semester **1 – 2018**: **01/02/2018 – 15/06/2018,** 40 hrs);

Publications (SCOPUS Author´s Name: V. Azhmyakov)

a) Books 9
b) Book Chapters 10
c) Refereed Journal Papers 55
d) Refereed Conference Papers 57
e) Research Reports 11

Books

a.1 **V. Azhmyakov,**
***Optimal Stabilization of Stochastic Control Systems* (in Russian),**
the Ph.D. Thesis, Institute of Control Sciences the Russian Academy of Sciences, Moscow, Russia, 1994.

a.2 **V. Azhmyakov,**
***Stable Operators in Analysis and Optimization*,**
Peter Lang, Frankfurt am Main, Germany, 2005,
ISBN 3-631-53403-5.

a.3 **V. Azhmyakov,**
***Numerically Stable Schemes for Optimal Control Problems with Constraints*,**
Postdoctoral (Habil-) Thesis, Univeristy of Greifswald,
Greifswald, Germany, 2005.

a.4 **V. Azhmyakov,**
***Consistent Approximations of Constrained Optimal Control Problems*,**
LOGOS Verlag, Berlin, Germany, 2007.
ISBN 978-3-8325-1584-3

a.5 **C.A. Coello Coello, A. Poznyak, J.A. Moreno Cadenas, V. Azhmyakov (Eds.),**
***New Trends in Electrical Engineering, Automatic Control, Computing and Communication Sciences*,**
LOGOS Verlag, Berlin, Germany, 2010.
ISBN 978-3-8325-2429-6

a.6 **A. Poznyak, V. Azhmyakov, A. Polyakov,**
***Attractive Ellipsoids in Robust Control*,**
Birkhaeuser / Springer, Basel, 2014.
ISBN 978-3-319-09209-6

a.7 **V. Azhmyakov**
Convex Optimal Control Problems,
Springer (Springer Briefs Series on Control, Automation and Robotics)
work in progress (Publishing Agreement signed).

a.8 **V. Azhmyakov, L.A. Guzman Trujillo,**
A Short Course in Lyapunov Stability Theory,
Lambert Academic Publisher, New York
work in progress.

a.9 **V. Azhmyakov,**
A Relaxation Based Approach to
Optimal Control of Hybrid and
Switched Systems: a Practical Guide
for Engineers,
Elsevier, London, 2018
ISBN: 9780128147887

Book Chapters

b.1 **V. Azhmyakov, W. Schmidt,**
Explicit approximations of relaxed optimal control processes,
in: "Optimal Control" edited by Technical University of München,
Hieronymos Buchreproduktions GmbH, München, Germany, 2003,
pp. 179 – 192.

b.2 **V. Azhmyakov,**
A numerical method for stabilization problems using proximal point approach,
in: "Metal Structures: Design, Fabrication, Economy" edited by
K. Jarmai and J. Farkas,
Millpress, Rotterdam, Holland, 2003, pp. 357 -- 361.

b.3 **V. Azhmyakov, J. Raisch,**
A gradient-based approach to a class of hybrid optimal control problems,
in: "Analysis and Design of Hybrid Systems 2006" by Ch. Cassandras,
Elsevier, Burlington, MA, USA, 2006, pp. 89 – 94.

b.4 **V. Azhmyakov, D. Gromov, A. Attia, J. Raisch,**
Necessary optimality conditions for a class of hybrid optimal control problems,
in: Lecture Notes in Computer Sciences vol. 4416, edited by
A. Bemporad, A. Bicchi and G. Buttazzo,
Springer, Berlin, Germany, 2007, pp. 637 – 640.

b.5 **V. Azhmyakov, A. Attia, J. Raisch,**
***On the Maximum Principle for impulsive hybrid systems*,**
in: Lecture Notes in Computer Sciences, vol. 4981, edited by
M. Egerstedt and B. Mishra,
Springer, Berlin, Germany, 2008, pp. 30 – 42.

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d.57 **V. Azhmyakov, N. Castanos, J. Perea Arango, P. Graczyk,**
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Research Reports

e.1 **V. Azhmyakov**
***A computational approach to stability of dynamical systems* (in Russian),**
Preprint Institute of Control Sciences the Russian Academy of Sciences, Moscow, 1994.

e.2 **V. Azhmyakov**
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e.4 **V. Azhmyakov,**
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e.5 **V. Azhmyakov, W. Schmidt,**
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e.6 **V. Azhmyakov,**
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e.7 **V. Azhmyakov,**
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e.9 **V. Azhmyakov,**
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e.10 **V. Azhmyakov,**
***Stable operators in Banach spaces, Part II*,**
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e.11 **V. Azhmyakov, W. Schmidt,**
Stable methods for convex optimal control problems with constraints,
Preprint no. 4 E.M.A. University of Greifswald, Greifswald, 2005.

Programming skils

Python, MATLAB, C / C++, Fortran, Gurobi, Mathematica, Maple,
MS Office, MS Excel, LaTeX

Languages

Russian (native), German (very good), English (very good), Spanish (very good)