EUROPEAN
CURRICULUM VITAE
FORMAT

PERSONAL INFORMATION

Name	**Krastanov, Mikhail Ivanov**
Address	***James Bourchier Boul. 5, 1164 Sofia, Bulgaria***
Telephone	**+359884319735**
E-mail	**krastanov@fmi.uni-sofia.bg**
Nationality	Bulgarian
Date of birth	9 MARCH 1958

WORK EXPERIENCE

• Dates	2012 - present
• Name and address of employer	**Department of Mathematics and Informatics** **James Bourchier Boul. 5, 1164 Sofia, Bulgaria**
• Type of business or sector	Public
• Occupation or position held	**Professor**
• Main activities and responsibilities	Research in the field of mathematics

• Dates	2000 - 2012
• Name and address of employer	**Instittute of Mathematics and Informatics** **Acad, G. Bonchev, block 8, 1113 Sofia, Bulgaria**
• Type of business or sector	Public
• Occupation or position held	**Associate Professor**
• Main activities and responsibilities	Research in the field of mathematics

• Dates	1996 - 2000
• Name and address of	**Instittute of Mathematics and Informatics**

employer	**Acad, G. Bonchev, block 8, 1113 Sofia, Bulgaria**
• Type of business or sector	Public
• Occupation or position held	**Research fellow**
• Main activities and responsibilities	Research in the field of mathematics
• Dates	1989 - 1996
• Name and address of employer	**Instittute of Biophysics** **Acad, G. Bonchev, block 21, 1113 Sofia, Bulgaria**
• Type of business or sector	Public
• Occupation or position held	**Research fellow**
• Main activities and responsibilities	Research in the field of mathematics

TEACHING EXPERIECE

• Dates	2001 – present
• Name and type of organisation providing education and training	Department of Mathematics and Informatics, Sofia University.
• Graduate course	Optimal control
• Graduate course	Game theory.
• Dates	2012 – present
• Name and type of organisation providing education and training	**Department of Mathematics and Informatics, Sofia University.**
• Graduate course	Nonlinear systems theory
• Graduate course	Methods for optimization
• Bachelors course	Linear optimization
• Bachelors course	Mathematical modelling

EDUCATION AND TRAINING

• Dates	30 January 2009
• Name and type of organisation providing education and training	**Instittute of Mathematics and Informatics** **Acad, G. Bonchev, block 8, 1113 Sofia, Bulgaria**
• Title of qualification awarded	Doctor of Sciences, Thesis “Local analysis of control systems”
• Dates	4 June 1989
• Name and type of organisation providing education and training	**Department of Mathematics, University of Sofia, Bulgaria**
• *Title of qualification awarded*	PhD, Thesis *“Local controllability of nonlinear control systems”*

• Dates	25 November 1983
• Name and type of organisation providing education and training	**Department of Mathematics, University of Sofia, Bulgaria**
• *Title of qualification awarded*	Master, specialization “Operations research”

PERSONAL SKILLS AND COMPETENCES

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MOTHER TONGUE	**BULGARIAN**
OTHER LANGUAGES	
	ENGLISH
• Reading skills	Excellent
• Writing skills	Good
• Verbal skills	Good
	German
• Reading skills	Excellent
• Writing skills	Good
• Verbal skills	Good
	Russian
• Reading skills	Excellent
• Writing skills	Excellent
• Verbal skills	Good

ADDITIONAL INFORMATION

List of selected publications

Milen K. Borisov, Neli S. Dimitrova, **Mikhail I. Krastanov**, Global stabilizability of an anaerobic biodegradation process via piecewise constant feedback, International journal on robust and nonlinear control, 30 (10), 2777-2795, **IF** 3.953/2019, Квартил **Q1**, DOI: 10.1002/rnc.4914, **2020**

M. Bivas, **M. I. Krastanov**, N. K. Ribarska, On strong tangential transversality, Journal of Mathematical Analysis and Applications, 490 (1), https://doi.org/10.1016/j.jmaa.2019.123445, **IF** 1.188/ 2019, Квартил **Q1** (63/314), **2020**

M. Bivas, **M. I. Krastanov**, N. K. Ribarska, On tangential transversality, Journal of Mathematical Analysis and Applications, 481 (1), https://doi.org/10.1016/j.jmaa.2019.123445, **IF** 1.188/ 2019, Квартил **Q1** (63/314), **2020**

Stoyan R. Apostolov, **M. I. Krastanov**, N. K. Ribarska, Sufficient Condition for Tangential Transversality, Journal of Convex Analysis, 27, **IF** 0.627/2018, Квартил **Q2** (147/314), **2020**

A. L. Dontchev, **M. I. Krastanov**, V. M. Veliov, On the Existence of Lipschitz Continuous Optimal Feedback Control, Vietnam Journal of Mathematics, 47 (3), 579-597, **SJR** 0.23/2018, **2019**

A. L. Dontchev, I. Kolmanovsky, **M. I. Krastanov**, V. M. Veliov, Lipschitz stability in discretized optimal control with applications to SQP, SIAM Journal on Control and Optimization, 57 (1), 468-489, **IF** 1.986/ 2018, Квартил **Q1** (52/252), **2019**.

R. Cibulka, A. L. Dontchev, **M. I. Krastanov**, V. M. Veliov, Metrically Regular Differential Generalized Equations, SIAM Journal on Control and Optimization, 56, 1, 316-342, **IF** 1.986/ 2018, Квартил **Q1** (52/252), **2018**.

S. M. Aseev, **M. I. Krastanov**, V. M. Veliov, Optimality conditions for discrete-time optimal control on infinite horizon, Pure and Applied Functional Analysis, 2, 3, 395-409, 2017.

M.I.Krastanov, N.K.Ribarska, Nonseparation of sets and optimality conditions, SIAM Journal on Control and Optimization, 55, 3, 1598-1618, **IF** 1.986/ 2018, Квартил **Q1** (52/252), 2017.

M.I.Krastanov, N.K.Ribarska, Ts.Y.Tsachev, On the Geometry of the Pontryagin Maximum Principle in Banach Spaces, Set-Valued and Variational Analysis 23, No 3, 443-463, **IF** 1.986/ 2018, Квартил **Q2** (97/254), 2015.

A. L. Dontchev, **M.I.Krastanov**, V. M. Veliov, ω-Limit Sets for Differential Inclusions, Analysis and Geometry in Control Theory and its Applications, Bettiol, P., Cannarsa, P., Colombo, G., Motta, M., Rampazzo, F. eds., Springer, 159-169, **SJR** 0.3/2015, 2015.

N. S. Dimitrova, **M.I.Krastanov**, Model-based optimization of biogas production in an ana-erobic biodegradation process, Computers and mathematics with applications, 68, 986-993, 2014.

M.I.Krastanov, M. Quincampoix, On the Controllability of a Class of Hybrid Control Systems, Springer Lecture Notes in Computer Sciences, 8353, 107-115, 2014.

A. L. Dontchev, **M.I.Krastanov**, R. T. Rockafellar, V. M. Veliov, An Euler-Newton Continuation Method for Tracking Solution Trajectories of Parametric Variational Inequalities, SIAM J. on Control & Optimization, 51, 3, 1823-1840, 2013.

M. I. Krastanov, M. Quincampoix, On the Small-Time Controllability of Discontinuous Piece-Wise Linear Systems, Systems & Control Letters, 62, 2, 218-223, 2013.

N. S. Dimitrova, **M. I. Krastanov**, Output Feedback Stabilization of an Anaerobic Digestion Model, Comptes Rendus de L'Academie Bulgare des Sciences, 66, 4, 493-502, 2013.

M. I. Krastanov, On the Small-time Local Controllability, Journal of Convex Analysis, 19, 4, 1073-1090, 2012.

N. Dimitrova, **M. I. Krastanov**, Nonlinear adaptive stabilizing control of an anaerobic digestion model with unknown kinetics, International Journal of Robust and Nonlinear Control, 22, 15, 1743–1752, 2012.

N. S. Dimitrova, **M. I. Krastanov**, Generalization of the Concept for Biological Control in the Chemostat, WSEAS Transactions on biology and biomedicine, 4, 9, 93-102, 2012.

M. I. Krastanov , N. K. Ribarska, Ts. Y. Tsachev, A Pontryagin maximum principle for infinite-dimensional problems, SIAM J. on Control & Optimization, 49, 5, 2155-2182, 2011.

N. Dimitrova, **M. Krastanov**: Nonlinear Adaptive Control of a Model of an Uncertaim Fermentation Process. Int. J. Robust Nonlinear Control, ISSN 1049–8923, Volume 20, No. 9, 1001–1009. 2010.

M. I. Krastanov, A Sufficient Condition for Small-Time Local Controllability, SIAM J. on Control and Optimization, ISSN 0363-0129, Volume 48, Issue 4, pp. 2296-2322, 2009.

M. I. Krastanov, R. Rozenov, Feedback Nash equilibria in optimal taxation problems, Central European Journal of Mathematics, Springer ISSN: 1895-1074, Volume 7, No. 4, pp. 757-774, 2009 .

N. Dimitrova, **M. Krastanov**: Nonlinear Stabilizing Control of an Uncertain Bioprocess Model, Int. J. on Applied Mathematics and Computer Science, ISSN1641-876X, Volume 19, No. 3, pp. 441–454, 2009.

M. I. Krastanov, High-order variations and small-time local attainability, Control and Cybernetics, ISSN: 0324-8569, Volume 38, No 4, part B, pp. 1411--1428, 2009.

M. I. Krastanov, On the Constrained Small -Time Controllability of Linear Systems, Automatica, ISSN: 0005-1098 ,Volume 44, No. 9, pp. 2370-2374, 2008.

M. I. Krastanov, N. K. Ribarska, Ts. Y. Tsachev, On the existence of solutions to differential inclusions with nonconvex right-hand side, SIAM Journal on Optimization, ISSN 1052-6234, Volume 18, No. 3, pp. 733-751, 2007.

M. I. Krastanov, M. Malisoff, P. Wolenski, On the Strong Invariance Property for Non-Lipschitz Dynamics, Communications in Pure and Applied Analysis, ISSN: 1534-0392, Volume 5, No. 1, pp. 107-124, 2006.

M. I. Krastanov, V. M. Veliov, On the controllability of switching linear systems, Automatica, ISSN: 0005-1098, Volume 41, No. 4, pp. 663-

668, 2005.

M. I. Krastanov, A sufficient condition for small-time local attainability of a set, Control and Cybernetics, ISSN: 0324-8569, Volume. 31, No.3, pp. 739-750, 2002.

M. I. Krastanov, M. Quincampoix, Local small-time controllability and attainability of a set for nonlinear control systems, ESAIM: Control. Optim. Calc. Var., ISSN: 1292-8119, Volume 6, pp. 499—516, 2001.

N. Ribarska, Ts. Tsachev, **M. Krastanov**, A note on "On a critical point theory for multivalued functionals and application to partial differential inclusions", Nonlinear Analysis: Theory Methods Appl., ISSN: 0362-546X , Volume 43A, No.2, pp. 153-158, 2001.

N. Ribarska, Ts. Tsachev, **M. Krastanov**, The intrinsic mountain pass principle, Topological methods in nonlinear analysis, ISSN: 1230-3429, Volume 12, No. 2, 309-322, 1998.

M. Krastanov, A necessary condition for small-time local controllability, Journal of Dynamical and Control Systems, ISSN: 1079-2724, Volume 4, No. 3, pp. 425-456, 1998.

N. Ribarska, Ts. Tsachev, **M. Krastanov**, , Speculating about mountains, Serdika Marh. J, Volume 22, pp. 341-358, 1996.

M. Krastanov, Forward Invariant Sets, Homogeneity and Small- Time Local Controllability, Geometry in nonlinear control, Banach Center Publications, pp. 287-300, 1995.

M. Krastanov, V. Veliov, Local controllability of state constrained systems, Acta Univ. Lodz, Folia Math., Volume 5, pp. 103-112, 1992.

V. Veliov, M. Krastanov, Controllability of piecewise linear systems, Systems & Control Letters, Volume 7, pp. 335-341, 1986.

REFERENCES

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