

Curriculum Vitae – Savin Treanță

Personal Info: Date and place of birth: 03 March 1986, Bechet, Dolj, Romania; Phone Number: 0746 034 563; E-mail addresses: savin.treanta@upb.ro, savin_treanta@yahoo.com

Education: 2021: Habilitation in Mathematics, National University of Science and Technology Politehnica Bucharest, Romania [4 Ph.D. students (from 2022), 4 Ph.D. students (from 2023)]

2010-2013: Ph.D. University Politehnica of Bucharest, Faculty of Applied Sciences, Romania

2009-2011: M.Sc. “Simion Stoilow” Institute of Mathematics of the Romanian Academy, Scoala Normala Superioara-Bucharest (SNS-B), Department of Mathematics, Romania

2008-2010: M.Sc. University of Bucharest, Faculty of Mathematics and Informatics, Romania

2005-2008: B.Sc. University of Bucharest, Faculty of Mathematics and Informatics, Romania

Academic Experience: 2024-present: Associate Member, Academy of Romanian Scientists

2023-present: Full Professor, Faculty of Applied Sciences, National University of Science and Technology Politehnica Bucharest

2020-2023: Associate Professor, Faculty of Applied Sciences, University Politehnica of Bucharest

2017-2020: Lecturer, Faculty of Applied Sciences, University Politehnica of Bucharest

2011-2017: Assistant Professor, Faculty of Applied Sciences, University Politehnica of Bucharest

2011-2012: BITDEFENDER fellowship - Junior Research Position (obtained by international competition), “Simion Stoilow” Institute of Mathematics of the Romanian Academy

Research Fields: Differential Equations, Calculus of Variations, Optimization and Control Theory, Variational and Nonlinear Analysis, Geometric PDEs, Convex Analysis

Research Projects, Fellowships, Memberships: 2022-2023: project leader/director of the research project “Well-posedness, existence and characterization results of solutions for certain variational problems”, Academy of Romanian Scientists, “AOSR-TEAMS” 2022-2023 National Competition (Budget: 10.000 euro)

2022-present: founder member of “Fundamental Sciences Applied in Engineering” Research Center, National University of Science and Technology Politehnica Bucharest, 060042 Bucharest, Romania

2021-2026: Degree of Merit from the University “Politehnica” of Bucharest

2019-2024: member of research team for the project “AG 148 / SGU / NC / II / 10.09.2019 - Opportunities for professional development within the educational process of the Faculty of Applied Chemistry and Materials Science”, project leader Cristina Orbeci

2018-2019: project leader/director of the research grant “Nonlinear Analysis with Applications in Optimization and Control”, National University of Science and Technology Bucharest, National Competition (Budget: 10.000 euro)

2016-2017: member of research team for the project “Applied Mathematics in Urbanism”, project leader Corina Cipu

2011-2014: member of research team for the project “Qualitative study of delay differential equations with applications to modeling and simulation of leukemia therapy”, project leader Andrei Halanay

2011-2012: BITDEFENDER fellowship (Junior Research Position) at “Simion Stoilow” Institute of Mathematics of the Romanian Academy

International/National Conferences: - The Scientific Session of Young Researchers, AOSR TEAMS 2022-2023 competition (July 18, 2022; December 8, 2022; July 7, 2023; November 27, 2023)

- The 5-Day International Workshop on Optimization Techniques in Industrial and Engineering Applications, January 06-10, online, India, 2023 (invited speaker)
- The Third International Conference on Mathematical Techniques and Applications (eICMTA- 2022), March 23-25, online, India, 2022 (invited speaker)
- The Third Romanian Itinerant Seminar on Mathematical Analysis and its Applications, September 10-12, Alba Iulia, Romania, 2021
- The 13th International Conference on Multiple Objective Programming and Goal Programming, October 28-31, Marrakech, Morocco, 2019
- The 6th World Congress on Global Optimization, July 8-10, Metz, France, 2019
- The I Conference on Minimax Inequalities and Equilibrium Problems, May 6-7, Granada, Spain, 2019
- The 7th Workshop for Young Researchers in Mathematics (WYRM), May 17 - 20, Bucharest, Romania, 2017
- The 5th Workshop for Young Researchers in Mathematics (WYRM), May 21 - 24, Constanta, Romania, 2015
- Real and Complex Differential Geometry, September 8 - 12, Bucharest, Romania, 2014
- The 8th International Conference of Differential Geometry and Dynamical Systems, (DGDS - 2014), September 1 - 4, Mangalia, Romania, 2014
- The 7th International Conference of Differential Geometry and Dynamical Systems, (DGDS - 2013), October 10 - 13, Bucharest, Romania, 2013
- The 17th International Conference on Systems, Control, Signal Processing and Informatics (SCSI'13), July 16 - 19, Rhodes, Greece, 2013
- The 15th International Conference on Automatic Control, Modelling & Simulation (ACMOS'13), June 1 - 3, Brasov, Romania, 2013
- The 6th International Conference of Differential Geometry and Dynamical Systems, (DGDS - 2012), August 29 - September 2, Mangalia, Romania, 2012
- The International Conference “Poisson Geometry - 2012”, July 30 - August 3, Utrecht, The Netherlands (Olanda), 2012
- The 5th International Conference of Differential Geometry and Dynamical Systems, (DGDS - 2011), October 6 - 9, Bucharest, Romania, 2011

Additional Information: *Reviewer for:* Zentralblatt MATH; Mathematical Reviews; *International journals (an incomplete list):* Mathematical Communications; Optimal Control, Applications and Methods; Complexity; International Journal of Control; European Journal of Control; Asia-Pacific Journal of Operational Research; Symmetry-Basel; Axioms; Mathematics; AIMS Mathematics; Acta Mathematica Scientia; Journal of Optimization Theory and Applications; SN Operations Research Forum; *International conferences (an incomplete list):* The 4th International Conference on Computational Modeling, Simulation and Applied Mathematics (CMSAM2019), 27-29 December 2019, Guangzhou, China; Automation, Robotics & Communications for Industry 4.0 (ARCI): 1st IFSA Winter Conference, 17-19 February 2021, Chamonix-Mount-Blanc, France (International Program Committee Member).

Editorial board member for (an incomplete list): ACE Journal of Mathematical Research; International Journal of Mathematics and Systems Science; Transnational Journal of Mathematical Analysis and Applications; SCIREA Journal of Mathematics; Transnational Journal of Pure and Applied Mathematics; SCIREA Journal of Information Science and Systems Science; International Journal of Mathematical Analysis and Applications;

Editor for the following 4 (four) books: „Recent Advances in Nonlinear Analysis and Optimization with Applications”, Cambridge Scholars Publishing, 2020; „Symmetry in Mathematical Analysis and Functional Analysis”, Multidisciplinary Digital Publishing Institute, Switzerland, 2023; „Variational Problems and Applications”, Multidisciplinary Digital Publishing Institute Switzerland, 2023; „Advances in Optimization and Nonlinear Analysis”, Multidisciplinary Digital Publishing Institute Switzerland, 2022.

Guest Editor for the following Special Issues: “Advances in Partial Differential Equations: Theory and Applications” in the AIMS Mathematics journal (ISSN: 2473-6988); “Variational Problems and Applications - Volumes I, II” in the Mathematics journal (ISSN: 2227-7390); “Advances in Optimization and Nonlinear Analysis - Volumes I, II” in the Fractal and Fractional journal (ISSN: 2504-3110); “Symmetry in Mathematical Analysis and Functional Analysis - Volumes I, II, III” in the Symmetry journal (ISSN: 2073-8994); “Calculus of Variations and Nonlinear Partial Differential Equations” in the Axioms journal (ISSN: 2075-1680); “New Developments in Analysis of Variational Inequalities and Related Fields” in the Axioms journal (ISSN: 2075-1680).

Author (or co-author) of 3 (three) specialized books in international publishing houses (Springer, Cambridge Scholars Publishing, LAP Lambert Academic Publishing):

3) A. Jayswal, Preeti, S. Treanță, *Multi-dimensional Control Problems: Robust Approach*; Series ISSN: 2364-6837; Series E-ISSN: 2364-6845; Springer Singapore, 2022.

2) S. Treanță, *Variational Analysis with Applications in Optimisation and Control*, ISBN: 978-1-5275-3728-6, Cambridge Scholars Publishing, 2019.

1) O. Olteanu, S. Treanță, *Convexity, Optimization and Approximation, with some Applications*, ISBN: 978-613-9-87683-9, LAP Lambert Academic Publishing, 2018.

Author (or co-author) of 8 (eight) book chapters published in edited books published by Springer, World Scientific, Chapman and Hall/CRC, and Cambridge Scholars Publishing:

8) S. Treanță, *On Variational Derivative and Controlled Variational Inequalities*, In: Mishra S.K., Marechal P., Upadhyay B.B. (eds) *Recent Trends in Optimization: Theory, Algorithms, and Applications*; accepted, Springer Nature, 2023.

7) S. Treanță, *Results on the Existence of Solutions for Some Controlled Optimization Problems*, In: Debnath P., Srivastava H.M., Chakraborty K., Kumam P. (eds) *Advances in Number Theory and Applied Analysis*, DOI: 10.1142/13314; ISBN: 978-981-127-252-2; World Scientific, 2023.

6) S. Treanță, *Controlled nonlinear dynamics for constrained optimization problems involving second-order partial derivatives*, In: Jayswal, A., Antczak, T. (Eds.). (2022). *Continuous Optimization and Variational Inequalities* (1st ed.). Chapman and Hall/CRC. eBook ISBN: 9781003289883.

5) S. Treanță, *On well-posed variational problems involving multidimensional integral functionals*, In: Debnath P., Srivastava H.M., Kumam P., Hazarika B. (eds) *Fixed Point Theory and Fractional Calculus. Forum for Interdisciplinary Mathematics*. pp. 189-212; DOI: 10.1007/978-981-19-0668-8_11; eISBN: 978-981-19-0668-8; ISBN: 978-981-19-0667-1; Springer Singapore, 2022.

4) S. Treanță, *On a new class of interval-valued variational control problems*, In: Debnath P., Konwar N., Radenovic S. (eds) *Metric Fixed Point Theory - Applications in Science, Engineering and Behavioural Sciences*, pp. 211-226; DOI: 10.1007/978-981-16-4896-0_10; eISBN: 978-981-16-4896-0; ISBN: 978-981-16-4895-3; Springer, 2021.

3) S. Treanță, *On a class of interval-valued variational control problems with first-order PDE constraints*. In: Treanță S. (ed) *Recent Advances in Nonlinear Analysis and Optimization with Applications*, pp. 17-32; ISBN (10): 1-5275-5954-8; ISBN (13): 978-1-5275-5954-7; Cambridge Scholars Publishing, 2020.

2) S. Treanță, *On Controlled Variational Inequalities Involving Convex Functionals*. In: Le Thi H., Le H., Pham Dinh T. (eds) *Optimization of Complex Systems: Theory, Models, Algorithms and Applications*. WCGO 2019. *Advances in Intelligent Systems and Computing*, vol. 991, pp. 164-174, 2020. Springer, Cham. DOI: 10.1007/978-3-030-21803-4_17; ISBN: 978-3-030-21802-7; eISBN: 978-3-030-21803-4.

1) S. Treanță, C. Udriște, *Single-Time and Multi-Time Hamilton–Jacobi Theory Based on Higher Order Lagrangians*. In: Adhikari A., Adhikari M., Chaubey Y. (eds) *Mathematical and Statistical Applications in Life Sciences and Engineering*, pp. 71-95, 2017. Springer, Singapore. DOI: 10.1007/978-981-10-5370-2_3; ISBN: 978-981-10-5369-6; eISBN: 978-981-10-5370-2.

Total number of citations, according to Web of Science Core Collection: 1187

Hirsch index, according to Web of Science Core Collection: 18

Total number of citations, according to Google Scholar: 1274

Hirsch index, according to Google Scholar: 19

The Google Scholar profile: <https://scholar.google.ro/citations?user=RjZrdA8AAAAJ&hl=en>

139 visible WoS articles (at the time of writing this document).

Expert examiner on the panel for several PhD theses from abroad (India, Pakistan).

*The score for articles published in the last 5 years, with **Relative Influence Score greater than or equal to 0.5**, is $S = 62.2911$.*

***World's Top 2% Scientists** ranking by Stanford University.*

Rewarding of scientific results - CNCS/UEFISCDI (2014, 2017-present) for publication of articles in prestigious international journals.

December 2023 - Rewarding of scientific results for the special quality of the results obtained within the research project "Well-posedness, existence and characterization results of solutions for certain variational problems", Academy of Romanian Scientists, "AOSR-TEAMS" 2022-2023 <https://www.aosr.ro/competitia-aosr-teams-2022-2023/>

2023 - Participation in the training program Internal Managerial Control System, 6-8 June 2023.

2023 - Member of The International Society of Global Optimization.

***Expert evaluator** within the Call "Equipping pre-university education units and related units with furniture, teaching materials and digital equipment", PNRR, 2023.*

***Expert evaluator** within the Call "Scheme of Grants for the Digitization of Universities", financed by the National Plan for Recovery and Resilience (PNRR), Iunie 2022.*

***"Red" articles** according to AIS (see JCR2022 – 28 June 2023), published in the last 5 years (2019-2023):*

*1) **S. Treanță**, On a minimal criterion of efficiency in vector variational control problems, Optimization Methods and Software, Vol. 38, No. 4, 804-812, 2023; DOI: 10.1080/10556788.2023.2189712; WOS: 000959137400001; ISSN: 1055-6788.*

*2) **S. Treanță**, LU-optimality conditions in optimization problems with mechanical work objective functionals, IEEE Transactions on Neural Networks and Learning Systems, Vol. 33, No. 9, pp. 4971-4978, 2022; DOI: 10.1109/TNNLS.2021.3066196; WOS: 000733293400001; ISSN: 2162-237X.*

*3) **S. Treanță**, On well-posed isoperimetric-type constrained variational control problems, Journal of Differential Equations, Vol. 298, pp. 480-499, 2021; DOI: 10.1016/j.jde.2021.07.013; WOS: 000681321100016; ISSN: 0022-0396.*

*4) **S. Treanță**, Robust saddle-point criterion in second-order PDE&PDI constrained control problems, International Journal of Robust and Nonlinear Control, Vol. 31, No. 18, pp. 9282-9293, 2021; DOI: 10.1002/rnc.5767; WOS: 000693301500001; eISSN: 1099-1239.*

*5) **S. Treanță**, Y. Guo, The study of certain optimization problems via variational inequalities, Research in the Mathematical Sciences, Vol. 10, No. 1, 7, 2023; DOI: 10.1007/s40687-022-00372-w; WOS: 000919776900001; ISSN: 2522-0144.*

*6) **S. Treanță**, M. Arana-Jiménez, T. Antczak, A necessary and sufficient condition on the equivalence between local and global optimal solutions in variational control problems, Nonlinear*

Analysis-Theory Methods & Applications, Vol. 191, UNSP 111640, 2020; DOI: 10.1016/j.na.2019.111640; WOS: 000500478900002; ISSN: 0362-546X; eISSN: 1873-5215.

7) Y. Guo, G. Ye, W. Liu, D. Zhao, **S. Treanță**, *Solving nonsmooth interval optimization problems based on interval-valued symmetric invexity*, Chaos, Solitons and Fractals, Vol. 174, 113834, 2023; DOI: 10.1016/j.chaos.2023.113834; WOS: 001053527500001; ISSN: 0960-0779.

8) F. Shi, G. Ye, W. Liu, D. Zhao, **S. Treanță**, *Lagrangian dual theory and stability analysis for fuzzy optimization problems*, Information Sciences, Vol. 657, 119953, 2023; DOI: 10.1016/j.ins.2023.119953; WOS: 001135568400001; ISSN: 0020-0255.

9) Y. Guo, G. Ye, W. Liu, D. Zhao, **S. Treanță**, *On symmetric gH -derivative applications to dual interval-valued optimization problems*, Chaos, Solitons and Fractals, Vol. 158, 112068, 2022; DOI: 10.1016/j.chaos.2022.112068; WOS: 000830316700008; ISSN: 0960-0779.

“Yellow” articles according to AIS (see JCR2022 – 28 June 2023), published in the last 5 years (2019-2023):

1) **S. Treanță**, *Lagrange-Hamilton approach in optimization problems with isoperimetric-type constraints*, Journal of Optimization Theory and Applications, Vol. 194, No. 2, pp. 508-520, 2022; DOI: 10.1007/s10957-022-02036-9; WOS: 000791053800003; ISSN: 0022-3239; eISSN: 1573-2878.

2) **S. Treanță**, *On a global efficiency criterion in multiobjective variational control problems with path-independent curvilinear integral cost functionals*, Annals of Operations Research, Vol. 311, pp. 1249-1257, 2022; DOI: 10.1007/s10479-020-03579-8; WOS: 000522601800002; ISSN: 0254-5330; eISSN: 1572-9338.

3) **S. Treanță**, *On a class of interval-valued optimization problems*, Continuum Mechanics and Thermodynamics, Vol. 34, No. 2, 617-626, 2022; DOI: 10.1007/s00161-022-01080-0; WOS: 000750352200001; ISSN: 0935-1175; eISSN: 1432-0959.

4) **S. Treanță**, *Characterization results of solutions in interval-valued optimization problems with mixed constraints*, Journal of Global Optimization, Vol. 82, No. 4, pp. 951-964, 2022; DOI: 10.1007/s10898-021-01049-4; WOS: 000668875400001; ISSN: 0925-5001.

5) **S. Treanță**, *Robust optimality in constrained optimization problems with application in mechanics*, Journal of Mathematical Analysis and Applications, Vol. 515, No. 2, 126440, 2022; DOI: 10.1016/j.jmaa.2022.126440; WOS: 000833524000012; ISSN: 0022-247X.

6) **S. Treanță**, *On a class of constrained interval-valued optimization problems governed by mechanical work cost functionals*, Journal of Optimization Theory and Applications, Vol. 188, No. 3, pp. 913-924, 2021; DOI: 10.1007/s10957-021-01815-0; WOS: 000609071400002; ISSN: 0022-3239; eISSN: 1573-2878.

7) **S. Treanță**, *Efficiency in uncertain variational control problems*, Neural Computing and Applications, Vol. 33, No. 11, pp. 5719-5732, 2021; DOI: 10.1007/s00521-020-05353-0; WOS: 000571688500002; ISSN: 0941-0643; eISSN: 1433-3058.

8) **S. Treanță**, I. Ahmad, *Controlled nonlinear dynamics generated by isoperimetric constrained optimization problems involving second-order partial derivatives*, Systems and Control Letters,

Vol. 179, 105591, 2023; DOI: 10.1016/j.sysconle.2023.105591; WOS: 001047173900001; ISSN: 0167-6911.

9) S. Treanță, Șt. Mititelu, *Efficiency for variational control problems on Riemann manifolds with geodesic quasiinvex curvilinear integral functionals*, Revista de la Real Academia de Ciencias Exactas, Físicas y Naturales. Serie A. Matemáticas, Vol. 114, No. 3, 113, 2020; DOI: 10.1007/s13398-020-00842-2; WOS: 000529292100002; ISSN: 1578-7303; eISSN: 1579-1505.

10) S. Treanță, S. Singh, A. Jayswal, *On a class of variational-type inequalities involving curvilinear integral functionals*, Optimization, Vol. 71, No. 16, pp. 4835-4853, 2022; DOI: 10.1080/02331934.2021.1969394; WOS: 000688320100001; ISSN: 0233-1934.

11) S. Treanță, K. Nonlaopon, M.B. Khan, *On controlled Hamilton and Hamilton-Jacobi differential equations of higher-order*, Scientific Reports, Vol. 12, No. 1, 14633, 2022; DOI: 10.1038/s41598-022-18626-6; WOS: 000846428600001; ISSN: 2045-2322.

12) S. Singh, S. Treanță, *Characterization results of weak sharp solutions for split variational inequalities with application to traffic analysis*, Annals of Operations Research, Vol. 302, No. 1, pp. 265-287, 2021; DOI: 10.1007/s10479-021-03971-y; WOS: 000618124900001; ISSN: 0254-5330; eISSN: 1572-9338.

13) B.B. Upadhyay, S. Treanță, P. Mishra, *On Minty Variational Principle for Nonsmooth Multiobjective Optimization Problems on Hadamard Manifolds*, Optimization, Vol. 72, No. 12, pp. 3081-3100, 2023; DOI: 10.1080/02331934.2022.2088369; WOS: 000812669400001; ISSN: 0233-1934.

14) M.A. Aslam Noor, K.I. Noor, S. Treanță, K. Nonlaopon, *On three-step iterative schemes associated with general quasi-variational inclusions*, Alexandria Engineering Journal, Vol. 61, No. 12, 12051-12059, 2022; DOI: 10.1016/j.aej.2022.05.031; WOS: 000812795100014; ISSN: 1110-0168.

15) B.B. Upadhyay, A. Ghosh, S. Treanță, *Constraint Qualifications and Optimality Criteria for Nonsmooth Multiobjective Programming Problems on Hadamard Manifolds*, Journal of Optimization Theory and Applications, 2023; DOI: 10.1007/s10957-023-02301-5; WOS: 001072826900001; ISSN: 0022-3239; eISSN: 1573-2878.

Highly cited papers published in the last 5 years (2019-2023), according to Web of Science: 9 articles, as follows:

1) W. Afzal, W. Nazeer, T. Botmart, S. Treanță, *Some properties and inequalities for generalized class of harmonical Godunova-Levin functions via center radius order relation*, AIMS Mathematics, Vol. 8, No. 1, 1696-1712, 2023; DOI: 10.3934/math.2023087; WOS: 000915534400007; ISSN: 2473-6988. [11 citations]

2) W. Afzal, K. Shabbir, S. Treanță, K. Nonlaopon, *Jensen and Hermite-Hadamard type inclusions for harmonical h -Godunova-Levin functions*, AIMS Mathematics, Vol. 8, No. 2, 3303-3321, 2023; DOI: 10.3934/math.2023170; WOS: 000892283800004; ISSN: 2473-6988. [11 citations]

3) M.B. Khan, G. Santos-Garcia, H. Budak, S. Treanță, M.S. Soliman, *Some new versions of Jensen, Schur and Hermite-Hadamard type inequalities for (p, J) -convex fuzzy-interval-valued*

functions, AIMS Mathematics, Vol. 8, No. 3, 7437-7470, 2023; DOI: 10.3934/math.2023374; WOS: 000923463800010; ISSN: 2473-6988. [9 citations]

4) W. Afzal, M. Abbas, J. Macías-Díaz, S. Treanță, *Some H-Godunova-Levin Function Inequalities Using Center Radius (Cr) Order Relation*, Fractal and Fractional, Vol. 6, No. 9, 518, 2022; DOI: 10.3390/fractalfract6090518; WOS: 000858245000001; ISSN: 2504-3110. [16 citations]

5) T. Saeed, M.B. Khan, S. Treanță, H.H. Alsulami, M.Sh. Alhodaly, *Interval Fejér type Inequalities for Left and Right- λ -Preinvex Functions in Interval-Valued Settings*, Axioms, Vol. 11, No. 8, 368, 2022; DOI: 10.3390/axioms11080368; WOS: 000846269800001; ISSN: 2075-1680. [17 citations]

6) M.B. Khan, J.E. Macias-Diaz, S. Treanță, M.S. Soliman, H.G. Zaini, *Hermite-Hadamard Inequalities in Fractional Calculus for Left and Right Harmonically Convex Functions via Interval-Valued Settings*, Fractal and Fractional, Vol. 6, No. 4, 178, 2022; DOI: 10.3390/fractalfract6040178; WOS: 000785284500001; ISSN: 2504-3110. [21 citations]

7) M.B. Khan, S. Treanță, H. Budak, *Generalized p -Convex Fuzzy-Interval-Valued Functions and Inequalities Based Upon the Fuzzy-Order Relation*, Fractal and Fractional, Vol. 6, No. 2, 63, 2022; DOI: 10.3390/fractalfract6020063; WOS: 000811834600001; ISSN: 2504-3110. [19 citations]

8) M.B. Khan, S. Treanță, M.S. Soliman, K. Nonlaopon, H.G. Zaini, *Some Hadamard-Fejér type Inequalities for LR-Convex Interval-Valued Functions*, Fractal and Fractional, Vol. 6, No. 1, 6, 2022; DOI: 10.3390/fractalfract6010006; WOS: 000747879100001; ISSN: 2504-3110. [31 citations]

9) M.B. Khan, H.G. Zaini, S. Treanță, M.S. Soliman, K. Nonlaopon, *Riemann-Liouville Fractional Integral Inequalities for Generalized Pre-Invex Functions of Interval-Valued Settings Based Upon Pseudo-Order Relation*, Mathematics, Vol. 10, No. 2, 204, 2022; DOI: 10.3390/math10020204; WOS: 000747881800001; eISSN: 2227-7390. [25 citations]

Fields of interest

- * Multiobjective Optimization
- * Optimal Control Problems
- * Mathematical Modeling
- * Geometric PDEs
- * Information Theory
- * Variational Analysis