

BORIS S. MORDUKHOVICH–CURRICULUM VITAE

November 2008

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Current Positions

Distinguished University Professor at Wayne State University
Lifetime Scholar of the Academy of Scholars

Personal

Born in Moscow, Russia (former Soviet Union); Married, two children;
Citizen of the United States

Education

- **Ph.D.** in Applied Mathematics, Belarus State University (Minsk, Belarus, former Soviet Union)
- **M.S.** (*summa cum laude*) in Pure and Applied Mathematics, Belarus State University

Honorary Degrees

Doctor Honoris Causa, National Sun Yat-sen University (Kaohsiung, Taiwan)
Doctor Honoris Causa, Vasile Goldis University (Arad, Romania)
Doctor Honoris Causa, Alicante University (Alicante, Spain)

Areas of Research

- *Nonlinear and Variational Analysis, Dynamical Systems (ODEs and PDEs)*
- *Optimization and Control Theory, Operations Research*
- *Applications to Engineering, Economics, Mechanics, and Ecology*

Professional Career

- *Wayne State University*, Detroit, Michigan: Professor of Mathematics, since 1989
Named Distinguished University Fellow, Distinguished Professor of the Graduate School, and Distinguished University Professor
- *King Fahd University of Petroleum and Minerals*, Dhahran, Saudi Arabia: Distinguished Adjunct Professor of the Department of Mathematics and Statistics, since 2008
- *National Sun Yat-sen University*, Kaohsiung, Taiwan: Associate Member of the Department of Applied Mathematics and the Center for Nonlinear Analysis and Optimization, since 2007
- *International University–Vietnam National University*, HoChiMinh City, Vietnam: Associate Member of the Department of Mathematics, since 2007
- *International Institute of Applied Systems Analysis*, Laxenburg, Austria: Associate Member of Scientific Staff (Dynamic Systems Programs), since 1994
- *Research and Development Institute of Water Resources and Management*, Minsk, Belarus: Sci-

entist and Sr. Staff Scientist, 1973–1988

- *Belarus State University*, Minsk, Belarus: Adjunct Professor of Mathematics and Applied Mathematics, 1973–1988
- *Research and Development Institute of Automatic Technology and Control*, Minsk, Belarus: Research Engineer, 1971–1973

Selected Visiting Positions

- *University of Paul Sabatier*, Toulouse, France: Visiting Professor of Exceptional Rank, July 2009
- *German International Graduate School*, Bayreuth–Erlangen–Wuerzburg, Germany: Distinguished Guest Professor, June 2009
- *German Federal Research Center in Mathematics MATHEON*, Berlin, Germany: Distinguished Guest Professor, May–June 2009
- *Intituto Nazionale di Alta Matematica*, Rome–Milan–Pisa–Pavia–Varese, Italy: National Visiting Professor, April–May 2009
- *University of Padova*, Padua, Italy: Fondazione Cariparo Distinguished Visiting Professor, January–April 2009
- *King Saud University*, Riyadh, Saudi Arabia: Visiting Professor, January 2009
- *National Sun Yat-sen University*, Kaohsiung, Taiwan: Distinguished Visiting Professor, November–December 2008
- *University of Chile*, Santiago, Chile: Guest Professor, November 2008
- *University of Alicante*, Alicante, Spain: Senior Visiting Professor, October–November 2008
- *Miguel Hernandez University*, Elche, Spain: Senior Visiting Professor, September–October 2008
- *University of Porto*, Porto, Portugal: Visiting Scholar at the Center of Applied Mathematics, July–August 2008
- *King Fahd University of Petroleum and Minerals*, Dhahran, Saudi Arabia: Visiting Professor, March 2008
- *Curtin University of Technology*, Perth, Australia: Visiting Professor, July 2007
- *University of Adelaide*, Australia: Visiting Professor, July 2007
- *Pukuong National University*, South Korea: Visiting Professor, June 2007
- *National Sun Yat-sen University*, Kaohsiung, Taiwan: Visiting Professor, May–June 2007
- *International University–Vietnam National University*, HoChiMinh City, Vietnam: Visiting Professor, March 2007
- *University of Perpignan*, France: Visiting Professor, June–July 2006
- *Harbin Normal University*, China: Visiting Professor, June 2006
- *Hong Kong Polytechnic University*, China: Visiting Professor, May 2006
- *Royal Melbourne Institute of Technology*, Australia: Visiting Professor, September–October 2004 and March 2005
- *Indian Institute of Technology*, Delhi and Kanpur, India: Visiting Professor, December 2003
- *Institute of Mathematics and Institute of Automatization, National Academy of Sciences*: Prague,

Czech Republic: Visiting Scholar, April–May 2003

- *Institute of Mathematics, National Academy of Sciences*, Hanoi, Vietnam: Visiting Scholar, August–September 2002
- *Institute of Cybernetics, National Academy of Sciences*, Kiev, Ukraine: Visiting Scholar, May–June 2002
- *University of Paul Sabatier*, Toulouse, France: Visiting Professor, May–June 2000
- *University of Chile*, Santiago, Chile: Visiting Researcher, March 2000
- *University of Bourgogne*, Dijon, France: Visiting Professor, May–June 1999
- *Peking University*, Beijing, China: Visiting Professor, June 1998
- *Humboldt University*, Berlin, Germany: Visiting Professor, September–October 1997
- *The Technion*, Haifa, Israel: Visiting Researcher, March 1997 and March 1998
- *University of Limoges*, France: Visiting Professor, June 1996
- *Simon Fraser University*, Burnaby, Canada: Visiting Researcher, May 1996 and August 1997
- *University of Uppsala*, Sweden: Visiting Professor, June 1995 and May 1997
- *University of Porto*, Portugal: Visiting Professor, May 1995
- *International Institute for Applied Systems Analysis*, Laxenburg, Austria: Visiting Scientist, June 1994, July–August 1995, July–August 1996, June–July 1997, December 2005, and December 2006
- *University of New South Wales*, Sydney, Australia: Visiting Professor, March 1993
- *l'Institut National de Recherche en Informatique et en Automatique (INRIA)*, Rocquencourt, France: Visiting Scientist, July 1990 and July 1996
- *University of Pau*, France: Visiting Professor, May–June 1990
- *University of Montreal, Center for Mathematical Research*, Canada: Visiting Researcher, May–August 1989

Selected Honors

- *Dedication of the book on Variational Analysis and Generalized Differentiation in Optimization and Control*, to be published in Springer Series on Optimization and Its Applications, 2009
- *Doctor Honoris Causa*: Alicante University, Alicante, Spain, 2008
- *Nomination for the Lagrange Prize in Continuous Optimization*, Mathematical Programming Society and Society for Industrial and Applied Mathematics, 2008
- *Nomination for the Reid Prize in Mathematics*, Society for Industrial and Applied Mathematics, 2008
- *Nomination for Foreign Membership in the Russian Academy of Sciences*, 2008
- *Nomination for Foreign Membership in the Romanian Academy of Sciences*, 2008
- *Dedication of the Special Issue on Variational Analysis and Optimization of the Taiwanese Journal of Mathematics*, to appear in 2009
- *Dedication of the Special Issue on Generalized Differentiation, Variational Analysis and Mathematical Control of the International Journal of Mathematics and Statistics* **5** (2009), No. A09.

- *Dedication of the International Symposium on Variational Analysis and Optimization*, Kaohsiung, Taiwan, November 2008
- *Dedication of the Special Cluster on Variational Analysis and Optimization at the Central Fall Meeting of the American Mathematical Society*, Kalamazoo, Michigan, October 2008
- *Dedication of the 10th Midwest Optimization Meeting*, Kalamazoo, Michigan, October 2008
- *Dedication (among others) of the International Conference “50 Years of Optimal Control”*, Bedlewo, Poland, September 2008
- *Dedication of the Special Clusters on Variational Analysis and Generalized Differentiation and on Mathematical Control Theory at the International Conference Controlo2008*, Vila Real, Portugal, July 2008
- *Dedication of the Special Issue on Variational Analysis and Generalized Differentiation of the International Journal “Set-Valued Analysis”* **16** (2008), Nos. 2–3
- *Doctor Honoris Causa*: Vasile Goldis University, Arad, Romania, 2008
- *Honorary Medal of the Union of Czech Mathematicians and Physicists*: Czech Republic, 2008
- *Principal Lecturer*: International Workshop on Variational Analysis, Santiago, Chile, 2008
- *Distinguished Lecture Award*: The University of Texas–Pan American, 2008
- *Named Distinguished University Professor*: Wayne State University, 2008
- *Distinguished Award in Operational Research*: Indian National Science Academy, 2007
- *Principal Lecturer*: International Workshop on Variational Analysis and Optimization, Delhi, India, 2007
- *Doctor Honoris Causa*: National Sun Yat-sen University, Kaohsiung, Taiwan, 2007
- *Certificate of Appreciation*: Georgian Science Foundations, Tbilisi, Republic of Georgia, 2007
- *Principal Lecturer*: International Spring School on Optimization and Applied Mathematics, HoChiMinh City, Vietnam, 2007
- *Board of Governors Faculty Recognition Award*, Wayne State University, 2007
- *Dedication of the International Workshop on Optimization and Optimal Control*, Harbin, China, 2006
- *Principal Lecturer*: International Spring School on Analysis, Paseky, Czech Republic, 2006
- *Certificate of Highest Merit*: International University–Vietnam National University, HoChiMinh City, Vietnam, 2006
- *Outstanding Graduate Mentor Award*: Wayne State University, 2006
- *Lifetime Scholar of the Academy of Scholars*: Michigan, elected in 2004
- *Distinguished Graduate Faculty Award*: Wayne State University, 2004
- *Principal Lecturer*: Summer School of the First International Conference on Continuous Optimization, Troy, NY, 2004
- *Excellence in Teaching Award*: Wayne State University, 2004
- *Principal Lecturer*: International Spring School on Analysis, Paseky, Czech Republic, 2003
- *Best Paper Award*: Academy of Sciences of Czech Republic, 2002

- *Distinguished Faculty Fellowship*: Wayne State University, 1999
- *Board of Governors Faculty Recognition Award*: Wayne State University, 1998
- *Career Development Chair*, Wayne State University, 1992

Research Grants (Principal Investigator)

Continued NSF support since 1990 including:

- *Theory and Applications of Advanced Variational Analysis*, August 1, 2009–July 31, 2014, \$623,164, Proposal DMS-0852275
- *Methods of Variational Analysis in Optimization, Equilibria, and Control*, August 1, 2006–July 31, 2009, \$300,000, DMS-6524882
- *Asymptotic Analysis in Stochastic Processes, Nonparametric Estimation, and Related Problems* (with P.-L. Chow and G. Yin), June 1, 2006–May 31, 2008, \$30,408, DMS-6497883
- *Variational Analysis and Applications*, August 15, 2003–August 31, 2008, \$277,000, DMS-0304989
- *Variational Analysis and Geometric Methods in Optimal Control* (with H. J. Sussmann and Q. J. Zhu), February 15, 2003–March 31, 2004, \$8,000, DMS-0245279
- *Variational Analysis: Theory and Applications*, July 15, 2000–December 31, 2003, \$155,000, DMS-0072179
- *Research on Variational Analysis and Applications*, July 1, 1997–June 30, 2000, \$102,000, DMS-9704751
- *Applications of Infinite-Dimensional Nonsmooth Analysis to Optimization and Control* (with A. D. Ioffe), June 1, 1994–May 31, 1998, \$118,919, DMS-9404128
- *Nonsmooth Analysis and Approximation Methods in Optimization and Control*, June 1, 1992–December 31, 1995, \$84,000, DMS-9206989
- *Studies in Optimization, Nonsmooth Analysis, and Optimal Control*, July 1, 1990–December 31, 1992, \$59,882, DMS-9006224

Other Grants and Contracts

- *A Comparative Study of Generalized Solution Concepts for Elliptic Partial Differential Equations Using Nonsmooth Analysis Techniques* (with A. Eberhard and C. Pearce), October 1, 2004–December 30, 2007, \$150,000, Australian Research Council, Grant No. DP-0451168
- *A Study of Approximate Solutions to Mathematical Programs and Equilibrium Problems with Equilibrium Constraints via Fuzzy Set Theory Concepts* (with P. J. Gupta), March 1, 2005–September 30, 2005, \$10,000, Ministry of Science and Technology of India
- *Nonsmooth Analysis in Calculus of Variations and Optimal Control* (with A. D. Ioffe and R. T. Rockafellar), March 1, 1996–February 28, 1999, \$50,000, The United States–Israel Binational Science Foundation, Grant No. 94-00237
- *Infinite-Dimensional Nonsmooth Analysis and Applications* (with J. M. Borwein), 1996–1998, \$10,000, National Sciences and Engineering Research Council of Canada
- *Variational Analysis Applied to Nonsmooth Analysis and Generalized Equations* (with M. Théra et al.), January 1, 1995–March 31, 1997, \$8,000, NATO Contract No. CRG-950360

Doctoral Students Directed

Total Number Including Those in Soviet Union: 27

Recent Doctoral Students at Wayne State University

- *Bao Truong* (2008), Assistant Professor of Mathematics at Northern Michigan University
- *Nguyen Mau Nam* (2007), Assistant Professor of Mathematics at the University of Texas–Pan American
- *Wondi Geremew* (2005), Assistant Professor of Mathematics at the Richard Stockton College of New Jersey
- *Aychi Habte* (2005), Assistant Professor of Mathematics at Benedict College, South Carolina
- *Dong Wang* (2005), Assistant Professor of Mathematics at Fayetteville State University, North Carolina
- *Ilya Shvartsman* (2003), Assistant Professor of Mathematics at Pennsylvania State University
- *Lianwen Wang* (2003), Associate Professor of Mathematics at Central Missouri State University
- *Bingwu Wang* (2002), Associate Professor of Mathematics at Eastern Michigan University
- *Glenn Malcolm* (1998), Research Associate, Economic Department, Wayne State University
- *Kaixia Zhang* (1997), Manager in Applied Math. and Statistics, Alliance Data Systems, Ohio
- *Yongheng Shao* (1997), Senior Staff Scientist at Altair Engineering, Michigan
- *Feng Chen* (1995), Applied Mathematician at Ford Motor Company, Michigan
- *Imad Dakka* (1994), Professor of Mathematics, Oakland College, Michigan

Current Doctoral Students at Wayne State University

- *Sam Dassanayaka*
- *Mehari Gebregziabher*
- *Nguyen Hoang*
- *Phan Minh Hung*
- *Nguyen Thi Yen Nhi*
- *Tran Nghia* [3ex] **Recent/Current Postdoctoral Fellows and Research Associates**

- *Yajun Li* (China), since 2007–2008
- *Geraldo Sanchez Licea* (Mexico), 2006–2007
- *Pankaj Gupta* (India), 2005
- *Teodora Gulea* (Romania), 2003

Selected Editorial Positions

- EDITOR-IN-CHIEF, *Set-Valued and Variational Analysis: Theory and Applications*, since 2008
- ASSOCIATE EDITOR, *Studia Universitatis Babes-Bolyai, Ser. Mathematics*, since 2008

- ASSOCIATE EDITOR, *International Journal on Optimization: Theory, Methods, Applications*, since 2008
- GUEST EDITOR (with V. Lakshmikantham et. al.), special issue of *Nonlinear Analysis: Theory, Methods, Applications* on the *Proceedings of the Fifth World Congress of Nonlinear Analysts*, 2008–2009
- GUEST EDITOR (with I. Konnov and M. H. Shih), special issue of *Taiwanese Journal of Mathematics* on *Generalized Convexity and Monotonicity*, 2008–2009
- ASSOCIATE EDITOR, *The Open Statistics and Probability Journal*, since 2008
- ASSOCIATE EDITOR, *Dynamics of Continuous, Discrete & Impulsive Systems, Series B*, since 2007
- ASSOCIATE EDITOR, *International Journal of Mathematics and Statistics*, since 2007
- ASSOCIATE EDITOR, *The Open Cybernetics and Systematics Journal*, since 2007
- ASSOCIATE EDITOR, *The Open Operational Research Journal*, since 2007
- ASSOCIATE EDITOR, *Taiwanese Journal of Mathematics*, since 2007
- GUEST EDITOR (with L.-J. Lin and S.-Y. Shao), special issue of *Taiwanese Journal of Mathematics* on *Nonlinear and Convex Analysis*, 2007–2008
- ASSOCIATE EDITOR, *Nonlinear Analysis: Theory, Methods, Applications*, since 2006
- ASSOCIATE EDITOR, *Journal of Convex Analysis*, since 2006
- GUEST EDITOR (with M. Solodov and M. Todd), special issue of *Optimization Methods and Software* on *Nonsmooth Optimization and Related Topics* dedicated to memory of Naum Shor, 2006–2007
- ASSOCIATE EDITOR, *Mathematical Programming, Series B*, 2005–2008
- ASSOCIATE EDITOR, *Optimization Letters*, since 2005
- GUEST EDITOR (with A. Nemirovski and Yu. Nesterov), special issue of *Mathematical Programming, Series B* on *Nonsmooth Optimization and Its Applications* dedicated to Boris Polyak, 2005–2006
- GUEST EDITOR (with J.-B. Hiriart-Urruty, C. Lemarechal, J. Sun and R. J.-B. Wets), special two-volume issue of *Mathematical Programming, Series B* on *Variational Analysis, Optimization and Their Applications* dedicated to Terry Rockafellar, 2003–2005
- ASSOCIATE EDITOR, *Mathematics of Operations Research*, since 2003
- GUEST EDITOR (with R. T. Rockafellar), special issue of *Set-Valued Analysis* on *Variational Analysis and Its Applications*, 2002–2004
- ASSOCIATE EDITOR, *Optimization*, since 2000
- ASSOCIATE EDITOR, *Journal of Mathematical Analysis and Applications*, 1999–2008
- ASSOCIATE EDITOR, *Set-Valued Analysis*, since 1999
- ASSOCIATE EDITOR, *Positivity*, since 1996
- ASSOCIATE EDITOR, *Journal of Dynamical and Control Systems*, since 1994
- ASSOCIATE EDITOR, *SIAM Journal on Control and Optimization*, 1993–2000

Other Professional Service (Selected Items)

- *Co-Organizer*, Special Cluster on Variational Analysis at the 20th International Symposium on Mathematical Programming, Chicago, IL, August 2009
- *Organizer*, Special Cluster on Variational Analysis and Its Applications, 5th World Congress of Nonlinear Analysts, Orlando, FL, 2008
- *Co-Organizer*, International Conference on Nonlinear Analysis and Optimization, Haifa, Israel, 2008
- *Co-Organizer*, Special Minisymposium on Variational Analysis in Optimization and Control, SIAM Conference on Control and Its Applications, San Francisco, CA, 2007
- *Panel Member*, National Science Foundation FRG (Focuses Research Groups in the Mathematical Sciences) Panels, 2006–2007
- *Member of the Advisory Board*, Encyclopedia of Optimization, 2006–2007
- *Co-Organizer*, International Conference on Asymptotic Analysis of Stochastic Processes, Non-parametric Estimation, and Related Topics, Detroit, MI, 2006
- *Organizer*, Special Session on Equilibrium Problems with Equilibrium Constraints, 1st International Conference on Continuous Optimization, Troy, NY, 2004
- *Organizer*, Special Cluster on Variational Analysis and Its Applications, 4th World Congress of Nonlinear Analysts, Orlando, FL, 2004
- *Organizer*, 6th Midwest Optimization Meeting, Detroit, MI, 2006
- *Co-Organizer*, Special Cluster on Variational Methods in Optimal Control, 41th IEEE Conference on Decision and Control, Las Vegas, NV, 2002
- *Co-Organizer*, Special Session on Variational Analysis and Applications, 1st Joint AMS-UMI Meeting, Pisa, Italy, 2002
- *Co-Organizer*, Special Minisymposium on Variational Analysis in Optimal Control, SIAM Conference on Control and Its Applications, San Diego, CA, 2001
- *Panel Member*, National Science Foundation REU (Research Experience for Undergraduates) Panel, 2000
- *Organizer*, Special Session on Variational Analysis and Optimization, 3rd World Congress of Nonlinear Analysts, Catania, Italy, 2000
- *Co-Organizer*, Special Session on Optimization and Variational Analysis, AMS Central Sectional Meeting, Detroit, MI, 1997
- *Organizer*, Special Session on Nonsmooth Analysis and Optimization, 2nd World Congress of Nonlinear Analysts, Athens, Greece, 1996
- *Topic Coordinator on Nonsmooth Optimization*, 15th International Symposium on Mathematical Programming, Ann Arbor, MI, 1994
- *Vice-Chair for Short Papers*, 33rd IEEE Conference on Decision and Control, Orlando, FL, 1994
- *Co-Organizer*, International IMA Workshop on Nonsmooth Analysis and Geometric Methods in Optimal Control, Minneapolis, MN, 1993
- *Organizer*, Special Session on Nonsmooth Analysis and Optimization, 1st World Congress of Nonlinear Analysts, Tampa, FL, 1992

- *Member* of Organizing and Program Committees of various national and international meetings
- *Referee* for various journals, publishers, grant agencies, proceedings, etc.

Invited Presentations

More than 400 invited conference and colloquium/seminar talks since 1989 including:

Selected Keynote and Plenary Lectures

- *VIII Brazilian Workshop on Continuous Optimization*, Rio de Janeiro, Brazil, July 2009
- *7th EUROPT Workshop on Advances in Continuous Optimization*, Remagen, Germany, 2009
- *International Workshop on Variational Analysis and Applications*, Erice, May 2009
- *International Conference on Variational Analysis and Optimization*, Kaohsiung, Taiwan, November 2008
- *International Workshop on Variational and Nonsmooth Analysis*, Santiago, Chile, November 2008
- *International Conference on Nonlinear Analysis and Optimization Problems*, Petrovac, Montenegro, October 2008
- *American Mathematical Society, Central Section Meeting*, Kalamazoo, MI, October 2008
- *International Conference on 50 Year of Optimal Control*, Bedlewo, Poland, September 2008
- *International Conference Calculus of Variations and Its Applications: from Engineering to Economy*, Lisbon, Portugal, September 2008
- *5th World Congress of Nonlinear Analysts*, Orlando, FL, July 2008
- *International Conference Control 2008*, Vila Real, Portugal, July 2008
- *NSF Summer Workshop on Applications of Analysis to Mathematical Biology*, Eau Claire, WI, July 2008
- *International Conference on Nonlinear Analysis and Optimization*, Haifa, Israel, June 2008
- *5th International Conference on Differential Equations and Dynamical Systems*, Baltimore, MD, May 2008
- *International Conference on Nonsmooth Analysis, Optimization and Applications*, Erice, Italy, May 2008
- *International Conference on Optimal Control of Coupled PDE*, Oberwolfach, Germany, March 2008
- *International Conference on Approximation and Optimization at the Caribbean*, San Andres Island, Colombia, March 2008
- *40th Annual Convention of the Operational Research Society of India*, Delhi, India, December 2007
- *International Workshop on Optimization and Its Application*, Delhi, India, November-December 2007
- *International Seminar on Optimization and Related Areas*, Lima, Peru, October 2007

- *West Coast Optimization Meeting*, Vancouver, Canada, October 2007
- *International Conference on Functional Analysis and Optimization*, Bedlewo, Poland, September 2007
- *23rd IFIP Conference on Systems Modelling and Optimization*, Krakow, Poland, July 2007
- *International Symposium on Functional and Numerical Analysis*, Kaohsiung, Taiwan, June 2007
- *5th International Conference on Nonlinear and Convex Analysis*, Hsinchu, Taiwan, May–June 2007
- *International Conference on Nonlinear Analysis and Optimization*, Isfahan, Iran, April 2007
- *International Spring School on Optimization and Applied Mathematics*, HoChiMinh City, Vietnam, March 2007
- *International Workshop on Computational Optimization and Analysis of Systems*, Kanpur, India, February 2007
- *International IFAC Workshop on New Approaches in Dynamic Optimization to Assessment of Economics and Environmental Systems*, Laxenburg, Austria, December 2006
- *International Conference on Advances in Control of Partial Differential Equations*, Baltimore, MD, October 2006
- *International Conference on Applied Analysis and Differential Equations*, Iasi, Romania, September 2006
- *International Conference on Variational Analysis and Partial Differential Equations*, Erice, Italy, July 2006
- *International Conference on Views of ODEs*, Aveiro, Portugal, June 2006
- *International Workshop on Variational Analysis and Optimization*, Harbin, China, June 2006
- *International Conference on Nonlinear Programming with Applications*, Shanghai, China, May–June 2006
- *International Meeting of the Atlantic Association for Research in the Mathematical Sciences*, Halifax, Canada, January 2006
- *8th International Conference on Parametric Optimization and Related Topics*, Cairo, Egypt, November–December 2005
- *3rd Sino-Japan Optimization Meeting*, Singapore, October–November 2005
- *International Conference dedicated to Gyula Farkas*, Cluj–Napoca, Romania, August 2005
- *International Conference on Optimization and Control*, Moscow, Russia, May 2005
- *International Conference on Science for Education, Industry, and Economy*, Minsk, Belarus, May 2005
- *International Conference on Control and Optimization with Industrial Applications*, Baku, Azerbaijan, May 2005
- *7th French–Latin American Congress on Applied Mathematics*, Santiago, Chile, January 2005
- *International Mathematical Conference on Extremal Problems*, Moscow, Russia, December 2004
- *48th Annual Meeting of the Australian Mathematical Society*, Melbourne, Australia, September–October 2004

- *International Workshop on Optimal Control for Ordinary Differential Equations*, Warsaw, Poland, August–September, 2004
- *International Workshop in Variational Limits*, Rehovot, Israel, June 2004
- *International Workshop on Dynamical Systems and Control*, Haifa, Israel, June 2004
- *International Conference on Analysis and Its Applications*, Canghua, Taiwan, May 2004
- *International Workshop on Control, Set-Valued Analysis and Applications*, University of French Antilles and Guyana, Pointe-a-Pitre, Guadeloupe, April 2004
- *7th International Conference on Approximation and Optimization in the Caribbean*, Leon, Nicaragua, March 2004
- *1st International Andean Conference—3rd Colombian Congress on Operations Research*, Cartagena, Colombia, March 2004
- *International Conference on Modeling and Optimization*, Temuco, Chile, January 2004
- *6th International Conference of the Association of Asia-Pacific Operational Research Societies*, New Delhi, India, December 2003
- *25th Brazilian Conferences on Applied and Computational Mathematics*, Rio Preto, Brazil, September 2003
- *International Conference on Variational Analysis and Applications*, Erice, Italy, June–July 2003
- *7th International Symposium on Generalized Convexity/Monotonicity*, Hanoi, Vietnam, August 2002
- *4th Brazilian Workshop on Continuous Optimization*, Rio de Janeiro, Brazil, July 2002
- *International Conference on Applied Mathematics*, Kiev, Ukraine, June 2002
- *West Coast Optimization Meeting*, Seattle, WA, April 1997
- *International Workshop on Well-Posedness in Optimization and Related Topics*, Warsaw, Poland, September 2001
- *3rd World Congress of Nonlinear Analysts*, Catania, Sicily, July 2000
- *6th International Conference on Parametric Optimization and Related Topics*, Dubrovnik, Croatia, October 1999
- *6th Australian Optimization Meeting*, Ballarat, Australia, July 1999
- *International Workshop on Differential Inclusions and Qualitative Reasoning in Global Change*, Potsdam, Germany, May 1999
- *International Conference on Control of Distributed Parameter and Stochastic Systems*, Hangzhou, China, June 1998
- *French–Chinese Workshop on Geometry of Banach Spaces*, Beijing, China, June 1998
- *International Workshop on the Calculus of Variations and Related Topics*, Haifa, Israel, March 1998
- *International Workshop on Relaxation Methods*, Rehovot, Israel, March 1998
- *West Coast Optimization Meeting*, Vancouver, Canada, April 1997
- *International Conference on Optimal Control: Theory, Algorithms, and Applications*, Gainesville, FL, February 1997

- *International Conference on Control and Estimation of Distributed Parameter Systems*, Vorau, Austria, July 1996
- *Spring 1996 Meeting of the Mathematical Association of America* (Michigan Section), Adrian, MI, May 1996
- *3rd International Conference on Approximation and Optimization*, Pueblo, Mexico, October 1995
- *8th International Workshop on Dynamics and Control*, Sopron, Hungary, July 1995
- *International Workshop on Nonsmooth Analysis and Its Applications*, Pau, France, June 1995
- *International Workshop on Set-Valued Calculus and Nonsmooth Analysis*, St. Petersburg, Russia, May–June 1995
- *International Workshop on Nonsmooth Analysis and Applications*, Santa Barbara, CA, April 1995
- *International Workshop on Nonsmooth Analysis and its Applications*, Banach Mathematical Center, Warsaw, Poland, May 1993
- *International Workshop on Nonsmooth Analysis and Geometric Methods in Deterministic Optimal Control*, Institute for Mathematics and its Applications, Minneapolis, MN, February 1993
- *International Conference on Nonsmooth Analysis and its Applications to Mathematical Economics*, Baku, Azerbaijan, October 1991
- *International Workshop on Optimization and Nonlinear Analysis*, Haifa, Israel, March 1990
- *International Workshop in Quantitative Analysis in Sensitivity and Optimization*, Montreal, Canada, February 1989

Publications

Around 270 refereed publications on mathematics and applications (including patents);

see the full publication list on <http://www.math.wayne.edu/~boris>

Monographs

- *Variational Analysis and Optimization: Selected Topics*, Fundamental of Algorithms Series, SIAM, in progress.
- *Variational Analysis and Generalized Differentiation, I: Basic Theory*, Grundlehren Series (Fundamental Principles of Mathematical Sciences), Vol. 330, 601 pp., Springer-Verlag, Berlin, 2006; reviewed in more than 15 journals.
- *Variational Analysis and Generalized Differentiation, II: Applications*, Grundlehren Series (Fundamental Principles of Mathematical Sciences), Vol. 331, 632 pp., Springer-Verlag, Berlin, 2006; reviewed in more than 15 journals.
- *Approximation Methods in Problems of Optimization and Control*, 360 pp., Main Editorial Board for Physical and Mathematical Literature, Nauka Publishers, Moscow, 1988.

Books Edited

- *Nonlinear Analysis and Optimization* (with A. Leizarowitz, I. Shafir and A. Zaslavski), American Mathematical Society, to appear.

- *Topics in Stochastic Analysis and Nonparametric Estimation* (with P. L. Chow and G. Yin), The IMA Volumes in Mathematics and Applications **145**, Springer–Verlag, New York, 2008.
- *Nonsmooth Analysis and Geometric Methods in Deterministic Optimal Control* (with H. J. Sussmann), The IMA Volumes in Mathematics and its Applications **78**, 254 pp., Springer–Verlag, New York, 1996.

Selected Journal Articles

- Metric regularity of mappings and generalized normals to set images (with N. M. Nam and B. Wang), to appear in *Set-Valued Anal.*
- Subdifferentials of value functions and optimality conditions for some classes of DC and bilevel infinite and semi-infinite programs (with N. Dinh and T. T. A. Nghia), to appear in *Math. Prog.*
- Limiting subgradients of the minimal time functions in Banach spaces (with N. M. Nam), to appear in *J. Global Optim.*
- Necessary conditions in nonsmooth optimization problems with operator constraints in metric spaces (with L. Mou), to appear in *J. Convex Anal.*
- Optimization of delay-differential inclusions in infinite dimensions (with D. Wang and L. Wang), to appear in *Pacific J. Optim.*
- Relative Pareto minimizers for multiobjective problems: existence and optimality conditions (with T. Q. Bao), to appear in *Math. Prog.*
- Qualification and optimality conditions for convex and DC programs with infinite constraints (with N. Dinh and T. T. A. Nghia), to appear in *Acta Math. Vietnamica.*
- Variational analysis of extended generalized equations via coderivative calculus in Asplund spaces (with N. M. Nam), to appear in *J. Math. Anal. Appl.*
- Optimization and feedback design of state-constrained parabolic systems, to appear in *Pacific J. Optim.*
- Necessary conditions for super minimizers in constrained multiobjective optimization (with T. Q. Bao), to appear in *J. Global Optim.*
- Coderivative calculus and metric regularity for constraint and variational systems (with W. Gernew and N. M. Nam), to appear in *Nonlinear Analysis.*
- Methods of variational analysis in multiobjective optimization, to appear in *Optimization.*
- Characterizations of linear suboptimality for mathematical programs with equilibrium constraints, to appear in *Math. Prog.*
- Multiobjective optimization problems with equilibrium constraints, *Math. Prog.* **117** (2009), 331–354.
- Subgradients of marginal functions in parametric mathematical programming (with N. M. Nam and N. D. Yen), *Math. Prog.* **116** (2009), 369–396.
- Suboptimal feedback design of constrained parabolic systems with mixed boundary control, *Appl. Math. Comput.* **204** (2008), 288–288.
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