XI INTERNATIONAL CONFERENCE ON GENERALIZED AND MONOTONICITY

IMPA, Rio de Janeiro, August 25-29, 2014

PRELIMINARY PROGRAM

NOTE: Speakers' names are **boldfaced**

Monday, August 25

8:45 - 9:00 **Opening**

9:00 - 10:30 **Session Mo1: Theory and Methods of Optimization** (chair: Boris Mordukhovich)

- 9:00 - 9:30
  Riccardo Cambini, University of Pisa, Pisa, Italy,
  riccardo.cambini@unipi.it
  Claudio Sodini, University of Pisa, Pisa, Italy,
  A unifying approach to solve a class of rank-three programs involing linear and quadratic functions

- 9:30 - 10:00
  Nicolas Hadjisavas, University of the Aegean, Hermoupolis, Greece,
  nhad@aegean.gr
  Second order asyimptotic analysis

- 10:00 - 10:30
  Boris Mordukhovich, Wayne State University, Detroit, USA,
  boris@math.wayne.edu
  Tilt stability in optimization and applications

10:30 - 11:00 Coffee break

11:00 - 12:30 **Session Mo2: Convexity and Geometry** (chair: Alfredo N. Iusem)

- 11:00 - 11:30
  Miroslav Bacak, Max Plank Institute, Leipzig, Germany,
  miroslav.bacak@gmail.com
  Convex analysis and optimization in Hadamard spaces

- 11:30 - 12:00
  Pedro Soares, Federal University of Piaui, Teresina, Brazil,
  pedrosoaresjr@gmail.com
  Equilibrium problems on Hadamard manifolds

- 12:00 - 12:30
  Alfredo N. Iusem, Instituto de Matemtica Pura e Aplicada, Rio de Janeiro, Brazil,
  iusp@impa.br
  Orizon P. Ferreira, Federal University of Goiás, Goiânia, Brazil,
  orizon@mat.ufg.br
  Sandor Németh, University of Birmingham, Birmingham, United Kingdom,
  nemeths@for.mat.bham.ac.uk
  Concepts and techniques of optimization on the sphere

12:30 - 14:30 Lunch

14:30 - 16:30 **Session Mo3: Convex Analysis I** (chair: Witold Jarczyk)

- 14:30 - 15:00
  Kazimiez Nikodem, University of Bielsko-Biala, Bielsko Biala, Poland,
  knikodem@math.bielsko.pl
  Jensen and Hermite-Hadamard inequalities for strongly convex set-values maps

- 15:00 - 15:30
  Michel Théra, Université de Limoges, Limoges, France,
  michel.thera@unilim.fr
  Old and new results on enlargements of maximally monotone operators

- 15:30 - 16:00
  Justina Jarczyk, University of Zielona Góra, Zielona Góra, Poland,
  j.jarczyk@wmie.uz.zgora.pl
  Uniform convexity of paranormed generalizations of L^p spaces

- 16:00 - 16:30
  Witold Jarczyk, University of Zielona Góra, Zielona Góra, Poland,
  w.jarczyk@wmie.uz.zgora.pl
  Convexity and a Stone-type theorem for convex sets in Abelian semogroups setting

16:30 - 17:00 Coffee break

17:00 - 17:45 **Plenary talk MoP** (chair: Dinh The Luc)
Ralph Steuer, University or Georgia, Athens, USA,
rsteuer@uga.edu
On exactly expanding Markowitz mean-variance portfolio to a third criterion

18:00 Cocktail

Tuesday, August 26

9:00 - 10:30 **Session Tu1: Control Theory** (chair: Soledad Aronna)

- 9:00 - 9:30
  Geraldo N. Silva, State University of São Paulo, São José do Rio Preto, Brazil,
  gsilva@ibilce.unesp.br
  Valeriano A. de Oliveira, State University of São Paulo, São José do Rio Preto, Brazil,
  antunes@ibilce.unesp.br
  Dmitry Karamzin, State University of São Paulo, São José do Rio Preto, Brazil,
  dmitry_karamzin@mail.ru
  On the sufficiency of the maximum principle for state constrained optimal control problems

- 9:30 - 10:00 **Valeriano A. de Oliveira,** State University of São Paulo, São José do Rio Preto, Brazil,
  antunes@ibilce.unesp.br
  Geraldo N. Silva, State University of São Paulo, São José do Rio Preto, Brazil,
  gsilva@ibilce.unesp.br
  On sufficient optimality conditions for multiobjective control problems

- 10:00 - 10:30
  Soledad Aronna, Instituto de Matemática Pura e Aplicada, Rio de Janeiro, Brazil,
  aronna@impa.br
  Monica Motta, University of Padua, Padua, Italy,
  Franco Rampazzo, University of Padua, Padua, Italy.
  Impulse controls and proper extensions of optimal control problems

10:30 - 11:00 Coffee break

11:00 - 12:30 **Session Tu2: Convex Analysis II** (chair: Zsolt Páles)

- 11:00 - 11:30
  Marek Zdun, University of Kraków, Kraków, Poland,
  mczdun@up.krakow.pl
  On iteratively convex functions

- 11:30 - 12:00
  Attila Gilányi, University of Debrecen, Debrecen, Hungary,
  gilanyi.attila@inf.unideb.hu
  Nelson Merentes, Central University of Venezuela, Caracas, Venezuela,
  Kazimiez Nikodem, University of Bielsko-Biala, Bielsko Biala, Poland,
  knikodem@math.bielsko.pl
  Zsolt Páles, University of Debrecen, Debrecen, Hungary,
  pales@science.unideb.hu
  On strongly Wright-convex functions of higher order

- 12:00 - 12:30
  Zsolt Páles, University of Debrecen, Debrecen, Hungary,
  pales@science.unideb.hu
  On an extremal property of Wright convex functions

12:30 - 14:30 Lunch

14:30 - 16:00 **Session Tu3: Assorted subjects** (chair: Genaro López Acedo)

- 14:30 - 15:00
  Daniel Reem, University of São Carlos, São Carlos, Brazil,
  dream@icmc.usp.br
  Yair Censor, University of Haifa, Haifa, Israel,
  yair@math.haifa.ac.il
  Zero-convex functions, perturbation resilience, and subgradient projections for feasibility seeking methods

- 15:00 - 15:30
  Flemming Topsoe, University of Copenhagen, Copenhagen, Denmark,
  topsoe@math.ku.dk
  Elements of a quantitative theory of cognition

- 15:30 - 16:00
  Genaro López Acedo, University of Sevilla, Sevilla, Spain,
  glopez@us.es
  Some tools of convex optimization in geodesic spaces

16:00 - 16:30 Coffee break

16:30 - 17:15 **Plenary talk TuP** (chair: Riccardo Cambini)
Francisco Facchinei, University of Rome La Sapienza, Rome, Italy,
facchinei@dis.uniroma1.it
Paralell methods for big data optimization

17:30 - 19:30 **General Assembly of the Working Group on Generalized Convexity and Monotonicity**

Wednesday, August 27

Excursion to Tropical Islands
Buses will leave at 9:00 A.M.

Thursday, August 28

9:00 - 10:30 **Session Th1: Vector Optimization I** (chair: Qamrul Hasan Ansari)

- 9:00 - 9:30
  S.K. Mishra, Benaras Hindu University, Varanasi, India,
  bhooshanbhu@gmail.com
  B.B. Upadhyay, Benaras Hindu University, Varanasi, India.
  On vector variational inequality problems and nonsmooth vector optimization via higher order strong convexity

- 9:30 - 10:00 **Hachem Slimani,** University of Bejaia, Bejaia, Algeria,
  haslimani@gmail.com
  Karima Bouibed, University of Bejaia, Bejaia, Algeria,
  Mohammed Said Radjef, University of Bejaia, Bejaia, Algeria.
  Nonsmooth multiobjective fractional bilevel programming under generalized d_I-invexity

- 10:00 - 10:30
  Qamrul Hasan Ansari, Aligarh Muslim University, Aligarh, India,
  qhansari@gmail.com
  Generalized vector variational-like inequalities and set-valued optimization

10:30 - 11:00 Coffee break

11:00 - 12:30 **Session Th2: Convex Analysis III** (chair: Wilfredo Sosa)

- 11:00 - 11:30
  Pál Burai, University of Debrecen, Debrecen, Hungary,
  burai.pal@unideb.hu
  Optimality conditions involving generalized convexity and convex analysis

- 11:30 - 12:00 **Felipe Opazo,** University of Concepción, Concepción, Chile,
  felipe.opazo@udec.cl
  Fabián Flores Bazán, University of Concepción, Concepción, Chile,
  fflores@ing-mat.udec.cl
  On the joint range of a pair of inhomogeneous quadratic functions with applications

- 12:00 - 12:30
  Wilfredo Sosa, Catholic University of Brasília, Brasília, Brazil,
  sosa@ucb.br
  Arrow-Debreu condition in the set of generalized concavity

12:30 - 14:30 Lunch

14:30 - 16:30 **Session Th3: Algorithms for Variational Problems** (chair: José Alberto Ramos Flor)

- 14:30 - 15:00 **Dinh The Luc,** University of Avignon, Avignon, France,
  the-luc.dinh@univ-avignon.fr
  Abdul Latif, King Abdulaziz University, Jeddah, Saudi Arabia.
  A fixed point method for solving linear variational relation problems

- 15:00 - 15:30 **Francisco J. Aragón Artacho,** University of Luxembourg, Luxembourg, Luxembourg,
  francisco.aragon@ua.es
  Ronan M.T. Fleming, University of Luxembourg, Luxembourg, Luxembourg.
  Globally convergent algorithms for finding zeroes of duplomonotone mappings

- 15:30 - 16:00 **Rolando Gárciga Otero,** Federal University of Rio de Janeiro, Rio de Janeiro, Brazil,
  rgarciga@ie.ufrj.br
  Alfredo N. Iusem, Instituto de Matemática Pura e Aplicada, Rio de Janeiro, Brazil,
  iusp@impa.br
  Fixed point methods for a certain class of operators

- 16:00 - 16:30 **José Alberto Ramos Flor,** University of São Paulo, São Paulo, Brazil,
  aramos27@gmail.com
  Paulo J. Silva e Silva, University of São Paulo, São Paulo, Brazil,
  pjsilva@ime.usp.br
  An inexact proximal point method for cohypomonotone operators with a practical relative error criterion

16:30 - 17:00 Coffee break

17:00 - 17:45 **Plenary talk ThP** (chair: Nicolas Hadjisavas)
Marco Antonio López Cerda, University or Alicante, Alicante, Spain,
marco.antonio@ua.es
Some glimpses of convex subdifferential calculus

20:30 **Conference dinner**
Restaurante Americana, Av. Rainha Elizabeth 100, Copacabana

Friday, August 29

9:00 - 10:30 **Session Fr1: Equilibrium and Complementary Problems** (chair: Vyacheslav V. Kalashnikov)

- 9:00 - 9:30 **Paulo Sérgio Marques dos Santos,** Federal University of Piaui, Teresina, Brazil,
  psergio@ufpi.edu.br
  Susana Scheimberg, Federal University of Rio de Janeiro, Rio de Janeiro, Brazil,
  susana@cos.ufrj.br
  A modified projection method for constrained equilibrium problems

- 9:30 - 10:00 **Rachana Gupta,** Indian Institute of Technology, Delhi, India,
  rachanagupta70@gmail.com
  Didier Aussel, University of Perpignan, Perpignan, France,
  aussel@univ-perp.fr
  Aparna Mehra, Indian Institute of Technology, Delhi, India.
  Evolutionary variational inequality formulation of time dependent generalized Nash equilibrium problems

- 10:00 - 10:30 **Vyacheslav V. Kalashnikov,** Monterrey Technological Institute, Monterrey, Mexico,
  kalash@itesm.mx
  Nataliya Kalashnikova, Autonomous University of Nuevo León, Monterrey, Mexico,
  nkalash2009 gmail.com
  Aarón Arévalo Franco, Monterrey Technological Institute, Monterrey, Mexico.
  Solution of parametric complementarity problems being monotone with respect to parameters

10:30 - 11:00 Coffee break

11:00 - 12:30 **Session Fr2: Convex Analysis IV** (chair: Fabián Flores Bazán)

- 11:00 - 11:30
  Roman Ger, Silesian University, Katowice, Poland,
  romanger@as.edu.plu
  Convexity and difference property

- 11:30 - 12:00 **Victoria Martín Márquez,** University of Sevilla, Sevilla, Spain,
  victoriam@us.es
  Right Bregman nonexpansive operators in Banach spaces

- 12:00 - 12:30
  Fabián Flores Bazán, University of Concepción, Concepción, Chile,
  fflores@ing-mat.udec.cl
  Hidden convexity in noncovex optimization

12:30 - 14:30 Lunch

14:30 - 16:30 **Session Fr3: Vector Optimization III** (chair: Dmitry Karamzin)

- 14:30 - 15:00 **Lidia Huerga,** Universidad Nacional de Educación a Distancia, Madrid, Spain, lhuerga@bec.uned.es
  César Gutiérrez, University of Valladolid, Valladolid, Spain,
  Bienvenido Jiménez, Universidad Nacional de Educación a Distancia, Madrid, Spain,
  Vicente Novo, Universidad Nacional de Educación a Distancia, Madrid, Spain.
  On a new Benson proper ϵ-subdifferential for vector-valued mappings

- 15:30 - 15:30 **Miguel Sama,** Universidad Nacional de Educación a Distancia, Madrid, Spain, msama@ing.uned.es
  César Gutiérrez, University of Valladolid, Valladolid, Spain,
  Bienvenido Jiménez, Universidad Nacional de Educación a Distancia, Madrid, Spain,
  Vicente Novo, Universidad Nacional de Educación a Distancia, Madrid, Spain.
  Optimality conditions for approximate solutions of unconstrained vector optimization problems

- 15:30 - 16:00 **Matthieu Maréchal,** University of Chile, Santiago de Chile, Chile, mmarechal@dim.uchile.cl
  Felipe Alvarez, University of Chile, Santiago de Chile, Chile,
  falvarez@dim.uchile.cl
  Rafael Correa, University of Chile, Santiago de Chile, Chile,
  rcorrea@dim.uchile.cl
  Bregman metrics: new characterizations in terms of induced proximal distances

- 16:00 - 16:30
  Dmitry Karamzin, State University of São Paulo, São José do Rio Preto, Brazil, dmitry_karamzin@mail.ru
  Valeriano A. de Oliveira, State University of São Paulo, São José do Rio Preto, Brazil, antunes@ibilce.unesp.br
  Geraldo N. Silva, State University of São Paulo, São José do Rio Preto, Brazil, gsilva@ibilce.unesp.br
  Generalized impulsive control as a result of impulsive convexification of the classical optimal control problem

16:30 - 17:00 Coffee break

17:00 - 17:45 **Plenary talk FrP** (chair: Alfredo Noel Iusem)
Regina S. Burachik, University of South Australia, Adelaide, Australia, regina.burachik@unisa.edu.au
Jonathan M. Borwein, University of Newcastle, Newcastwe, Australia,
Lingjin Yao, University of Newcastle, Newcastwe, Australia.
Conditions for zero duality gap in convex programming