EDITORIAL
A SPECIAL ISSUE DEDICATED TO JUAN ENRIQUE MARTÍNEZ-LEGAZ ON THE OCCASION OF HIS 70TH BIRTHDAY

It is our immense pleasure to dedicate this special issue to our dear friend Prof. Juan Enrique Martínez-Legaz on the auspicious occasion of his 70th birthday. Prof. Martínez-Legaz's original ideas influenced diverse research directions in optimization theory and applications over the past several decades.

Prof. Martínez-Legaz, born in Barcelona, received his Ph.D. in 1981 from Universitat de Barcelona, which he later joined as Associate Professor of Applied Mathematics in 1986 and then moved to Universitat Autònoma de Barcelona in 1990, where he was promoted to Full Professor in 1993. He received the title "EUROPT Fellow" of the year 2011. Furthermore, he supervised seven Ph. D. students and received Doctor Honoris Causa, Universidad Nacional de Ingeniería (Lima, Peru, 2011). He received numerous research grants, served on the editorial board of many well-known journals, and organizing committees of many conferences. He published more than 140 research papers in journals of high scientific merit and delivered more than 180 research talks worldwide, most of them as an invited speaker. Prof. Martínez-Legaz, a heavily cited researcher of the highest caliber, collaborated not only with established mathematicians but also with young aspirants to whom he provided much-needed support and encouragement.

This special issue is comprised of nine articles whose contributions are as follows:

The article "A stand-alone analysis of quasidensity" by S. Simons provides a detailed study of the notion of quasidensity. Interesting examples and technical results concerning the quasidense sets are supplied. The author also studies the coincidence sets of certain convex functions and provides primal and dual conditions of quasidensity. The coincidence sets of the partial epi-sums of a pair of convex functions, quasidense multifunctions, equivalent characterizations for maximal monotone sets, and numerous other topics are covered.

The contribution "Evenly Convex Sets, and Evenly Quasiconvex Functions, Revisited" by M. A. Goberna, M. M. L. Rodriguez, and J. Vicente-Perez presents a thorough study of the evenly convex sets and the evenly quasiconvex functions. Besides giving an overview of some of the known results and a unifying treatment of the subject, the authors also provide exciting new results.

A. Barragán, L. Hernández, A. Iusem, and M. Todorov, in their contribution "Primal-Dual Partitions in Linear Semi-Infinite Programming with Bounded Coefficients" consider two partitions over the space of linear semi-infinite programming parameters with a fixed index set and bounded coefficients. The first one is the primal-dual partition inspired by consistency and boundedness of the optimal value of the problem, whereas the second one is a refinement of the primal-dual partition that arises by also considering the boundedness of the optimal set. The authors extend the known results to the case where the constraint functions are bounded but not necessarily continuous.

The article "Convex Decompositions and the Valence of Some Functions" by C. Pintea and A. Tofan emphasizes the utility of convex decomposition of the specific convex set via the valence of each convex function whose restrictions to the considered set's convex subsets are all injective. This is related to the notion of the convex injectivity property (CIP) and termed as the CIP-functions. The authors provide a detailed discussion of the CIP-functions and cover many related topics.

M. A. Mansour and E. Tazi, in the contribution "An extremal vector problem under inclusion constraints," study a general vector optimization problem with set constraints. The authors conduct a detailed study of radial epiderivatives and relate these derivatives to Mosco-epiderivatives. Besides many technical results, a characterization of the contingent cone is given. The authors provide necessary and sufficient optimality conditions for the considered optimization problem.

The article "On diametrically maximal sets, maximal premonotone operators and premonotone bifunctions" by A. N. Iusem and W. Sosa deals with a generalization of monotone maps called premonotone operators and give various extensions. The paper studies many important classes of sets and maps such as diametrically maximal sets, maximal premonotone maps, a premonotone hull, and premonotone bifunctions, among others.

C-H Huang, Y-L Chang, and J-S Chen in their contribution entitled "The P-class and Q-class functions on symmetric cones" deal with the so-called P-class and Q-class functions that subsume convex and non-negative monotone functions. The authors work in the setting of Euclidean Jordan algebra and focus on the P-class and Q-class functions associated with symmetric cones (SC). Many useful properties and characterizations of such functions are derived. Illustrative examples are given.

A. Soubeyran and J. C. O. Souza, in the paper "General Descent Method Using w-Distance. Application to Emergence of Habits Following Worthwhile Moves" propose and analyze a general descent method using the so-called w-distance and apply it to the problem of the emergence of habits following worthwhile moves. The proposed descent method uses the w-distance function as regularization. The algorithm consists of three steps, namely, a sufficient descent condition, a check on the relative error, and a continuity condition. Some examples and the connections to the existing algorithms are given. Detailed convergence analysis for the proposed algorithm is presented.

The paper "Three Optimization Formulations for an Inverse Problem in Saddle Point Problems with Applications to Elasticity Imaging of Locating Tumor in Incompressible Medium" by O. Babaniyi, B. Jadamba, A. A. Khan, M. Richards, M. Sama, and C. Tammer focuses on identifying a distributed parameter in general saddle point problems. The authors propose various optimization formulations for the inverse problem and prove the existence results for the

corresponding optimization problem. They give first-order and second-order adjoint methods and present numerical results on tissue phantom data.

In conclusion, we express our most sincere gratitude to all the authors who have contributed to this special issue and to the reviewers who helped us with their thorough, timely, and helpful reviews.

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