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Call for papers

Special issue on block action methods in nonlinear programming and feasibility

Block action methods in nonlinear programming and feasibility have been a standard in many areas of application as an alternative to classical optimization methods for general problems. Optimization models derived from inverse problems in image processing and reconstruction give rise to very large and sparse ill-conditioned mathematical problems where block treatment of the constraints is a necessity, allowing only the use of first order function information, as well as early stopping because of the ill-posedness. This is the case, for example, with ART, MART and their relatives in X-ray computed tomography, the Expectation Maximization Algorithm, RAMLA and OS-EM in Emission Computed Tomography. Other important related examples appear in geophysics, borehole electromagnetic geotomography, radiation therapy planning and nonlinear neural network training, where backpropagation type methods are also related.

Considering the importance of this large family of methods, *International Transactions in Operational Research* (ITOR) will publish a special issue on the subject, expected to appear in the beginning of 2009.

Articles on theoretical and practical aspects of block action methods will be welcome. The articles will be thoroughly refereed according to the journal standards and the deadline for the submissions is May 31, 2008.

Submissions and further inquiries should be sent directly to any of the Guest Editors in charge of this issue: Hugo D. Scolnik (hscolnik@gmail.com) Alvaro R. De Pierro (alvaro@ime.unicamp.br), Nélida Echebest (opti@mate.unlp.edu.ar), and María T. Guardarucci. (marite@mate.unlp.edu.ar).

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