Nonsmooth optimization methods for chance constrained programming

Welington de Oliveira[*], Wim van Ackooij

[*]IMPA, Rio de Janeiro

Resumo

Chance constrained programming is one of the main approaches for dealing with uncertainty in optimization problems. This approach is particularly suitable whenever high uncertainty is involved and reliability is a crucial issue. Contrary to conventional optimization problems, chance constraints are, in general, not given explicitly. They can be non-differentiable and difficult to be evaluated. In this work we present bundle methods suitable for solving convex problems of this class. We give some numerical results on realistic joint chance constrained energy problems.