Global / Nonlinear Optimization in Modeling Environments

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The subject of global optimization (GO) is to find the best solution of complex nonlinear decision models which may have a - typically unknown - number of local optima. GO is an emerging area of research, and it has a broad range of scientific, engineering and economic applications [1-4].

In this talk, we will discuss and demonstrate the use of global and (convex) nonlinear optimization software using several modeling platforms [4-7], to meet a range of needs from the business-focused user to the research scientist.

The presentation is based on recent algorithm and professional software development, and will include illustrative tests, more serious challenges, and real-world application examples.

References

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