• Jorge Nocedal & Stephen J. Wright

Contents

- Introduction
- Fundamentals of Unconstrained Optimization
- Line Search Methods
- Trust Region Methods
- Conjugate Gradient Methods
- Quasi-Newton Methods
- Large-Scale Unconstrained Optimization
- Calculating Derivatives
- Derivative-Free Optimization
- Least-Squares Problems
- Nonlinear Equations
- Theory of Constrained Optimization
- Linear Programming: The Simplex Method
- Linear Programming: Interior-Point Methods
- Fundamentals of Algorithms for NonLinear Constrained Optimization
- Quadratic Programming
- Penalty and Augmented Lagrangian Methods
- Sequential Quadratic Programming
- Interior-Point Methods for Nonlinear Programming

http://www.mcs.anl.gov/otc/Guide/

Series

Topics Not Covered

- · network optimization: Ahuja, Magnani, and Orlin
- integer programming: Wolsey
- stochastic programming: Kall & Wallace
- nonsmooth optimization: Osborne
- global optimization: