

Optimization, Quasi-Newton methods

FMA051

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1 Code discussion

1.1 Line search

1.2 Stop conditions

2 Problems

2.1 Rosenbrock

2.1.1 Optimal points and function value

2.2 $\min e^{x_1 x_2 x_3 x_4}$ subject to $x_1^2 + x_2^2 + x_3^2 + x_4^2 + x_5^2 = 10, x_2 x_3 = 5x_4 x_5, x_1^3 + x_3^3 = -1$

2.2.1 Optimal points and function value

2.3 Exercise 9.3

2.3.1 Optimal points and function value

2.4 Exercise 9.5

2.4.1 Optimal points and function value

3 Solver evaluation

3.1 Consistency in the program behaviour

3.2 Comparison between DFP and BFGS