

QP lineare Zielfkt, line nichtlin. Neb.  
nichtlin. " , nur lineare Neb.

SLP projizierte Gradienten - Methode

NLP Kuhn Tucker

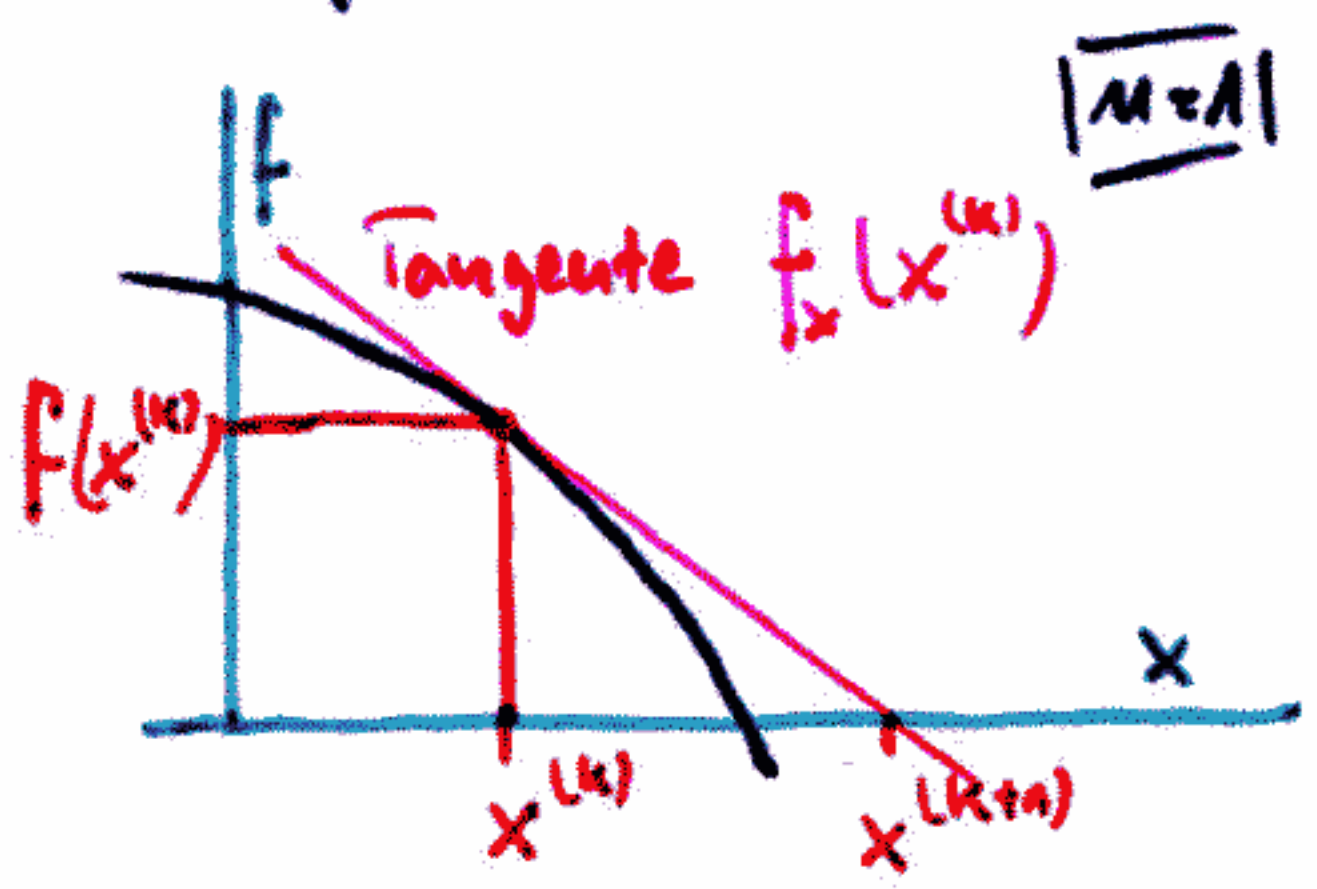
SQP allgemeine Suchverfahren

OR

quadrat. Problem ohne Restr.

$$f(x) = xAx^T + bx + c$$

$$\nabla f(x^*) = 0$$



Newton-Raphson  
Nullstellen Bestimmung

$$f_x(x^{(k)}) = \frac{f(x^{(k)}) - 0}{x^{(k)} - x^{(k+1)}}$$

$$x^{(k+1)} = x^{(k)} - \frac{f(x^{(k)})}{f_x(x^{(k)})}$$

n beliebig

$$x^{(k+1)} = x^{(k)} - \frac{f(x^{(k)})}{\nabla f(x^{(k)})}$$

für Nullstelle von ∇f:

$$x^{(k+1)} = x^{(k)} - \frac{\nabla f(x^{(k)})}{\nabla^2 f(x^{(k)})} s^{(k)}$$

Q 1

O(n^3) Rechenzeit