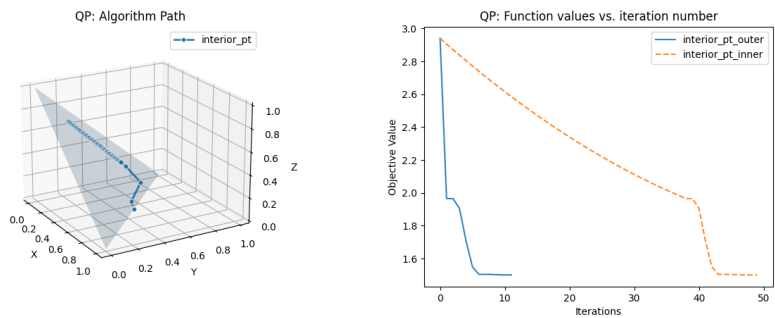


Numerical Optimization with Python - HW5

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1 QP



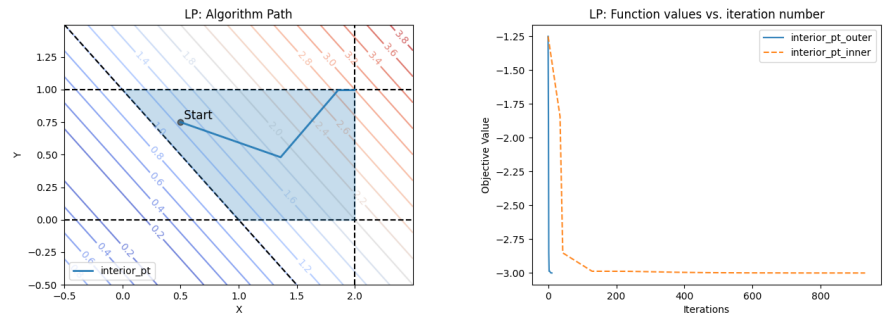
(a) Algorithm Path and Feasible Region (b) Function values vs. iteration number

Figure 1: QP plots

Last Iteration Report:

(x, y, z)	(0.4999 0.4999 0.0002)
$f(x, y, x)$	1.5002
st. $x + y + z = 1$	$0.499 + 0.499 + 0.0002 = 1$
where $x, y, z > 0$	True
Success	True

2 LP



(a) Algorithm Path and Feasible Region (b) Function values vs. iteration number

Figure 2: LP plots

Last Iteration Report:

(x, y)	(1.9999 0.9999)
$f(x, y, x)$	2.9999
st. $y \geq -x + 1$	$0.9999 \geq -1.9999 + 1$
where $0 \leq y \leq 1, x \leq 2$	True
Success	True