Convergence Rate of Nesterov Accelerated Gradient. $d = 2, \mu = 0.5, L = 1$

$\rho = 1.0$

$$\alpha^* = \frac{4}{3L + \mu}$$

$$\beta^* = \frac{\sqrt{3L + \mu} - 2\sqrt{\mu}}{\sqrt{3L + \mu} + 2\sqrt{\mu}}$$

Optimal Parameters
$\alpha^* = 1.14, \beta^* = 0.14, \rho^* = 0.24$

β (Momentum term)

α (Learning rate)

Convergence Rate (ρ)