

Smooth and strongly convex function

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Strong convexity VS smoothness

μ -strong convexity

$$f(y) \geq f(x) + \langle \nabla f(y), y - x \rangle + \frac{\mu}{2} \|x - y\|^2$$

L -smoothness

$$f(y) \leq f(x) + \langle \nabla f(x), y - x \rangle + \frac{L}{2} \|x - y\|^2$$

