One curve to rule them all

Random sample (repeated independent trials):

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$$\mathbf{E}(X) = \mu, \quad \mathrm{Var}(X) = \sigma^2$$

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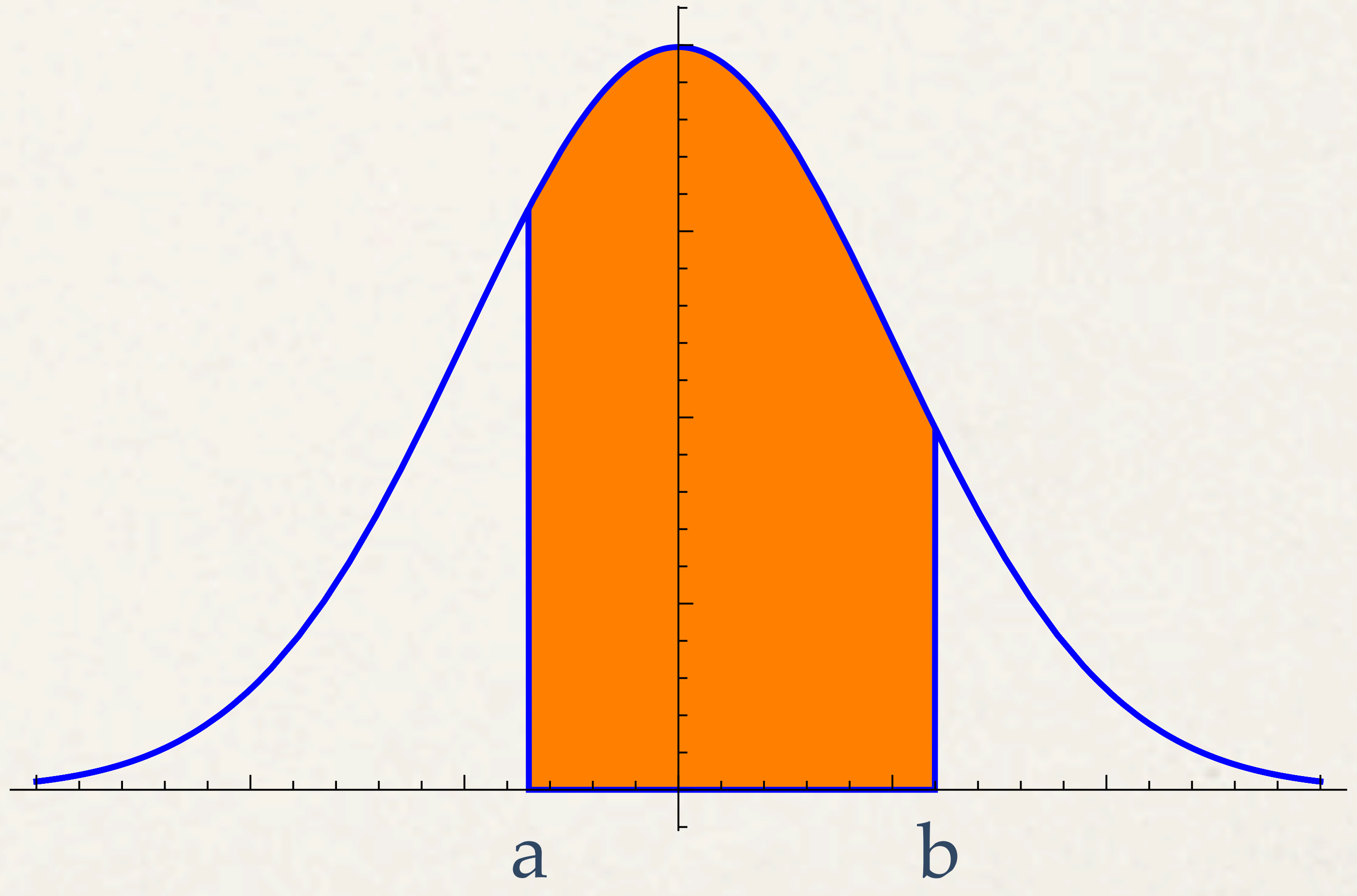
The central limit theorem

$$\mathbf{P}\{a < S_n^* \le b\} \to \int_a^b \phi(x)\,dx \qquad (n \to \infty)$$



Slogan

Sums of independent perturbations follow a normal law.