

$M2 := 100$ $m2 := 0 \dots M2 - 1$ $y2_{m2} := z2_{m2}$
 $M1 := 50$ $m1 := 0 \dots M1 - 1$ $y1_{m1} := z1_{m1}$

$$\psi(z, z0, \sigma) := \frac{1}{\sigma \cdot \sqrt{2 \cdot \pi}} \cdot \exp \left[\frac{-(z - z0)^2}{2 \cdot \sigma^2} \right]$$

$\sigma := 0.5$

$$\Phi1(z) := \frac{1}{M1} \cdot \sum_{m1=0}^{M1-1} \psi(z, z1_{m1}, \sigma)$$

$$\Phi2(z) := \frac{1}{M2} \cdot \sum_{m2=0}^{M2-1} \psi(z, z2_{m2}, \sigma)$$

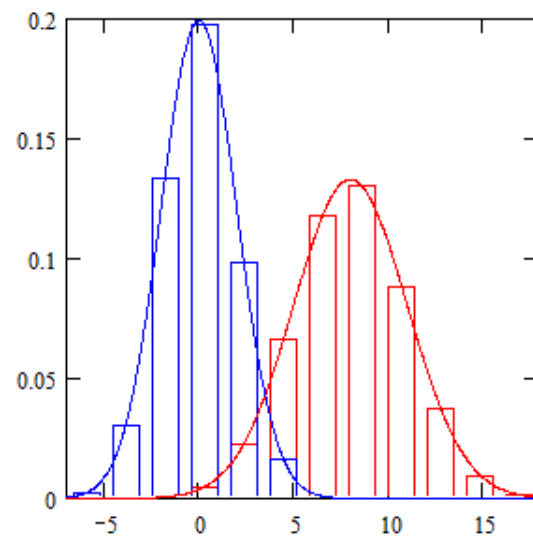
$$E(F, \Phi) := \int_{\text{lower}}^{\text{upper}} (\Phi(x) - F(x))^2 dx$$

$$\Psi1(z) := \frac{1}{n1} \cdot \sum_{j=0}^{\text{bin}-1} \text{hist}(\text{int}, z1)_j \cdot \psi(z, \text{int}_j, \sigma)$$

$$\Psi2(z) := \frac{1}{n2} \cdot \sum_{j=0}^{\text{bin}-1} \text{hist}(\text{int}, z2)_j \cdot \psi(z, \text{int}_j, \sigma)$$

$$\int_{\text{lower}}^{\text{upper}} \Phi1(x) dx = 1$$

$$\int_{\text{lower}}^{\text{upper}} \Phi2(x) dx = 1$$



upper = 18 bin = 12

lower = -7 h = 2.083

n1 = 500 n2 = 1000

M1 = 50 M2 = 100

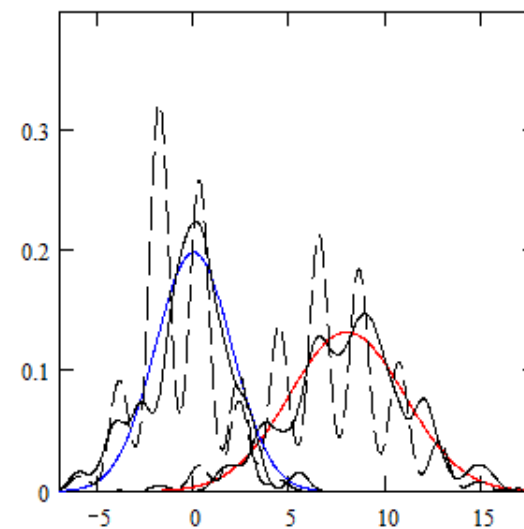
$\sigma = 0.5$

$E(F1, \Phi1) = 5.106 \cdot 10^{-3}$

$E(F2, \Phi2) = 2.494 \cdot 10^{-3}$

$E(F1, \Psi1) = 0.048$

$E(F2, \Psi2) = 0.023$



$M2 := 100$ $m2 := 0..M2 - 1$ $y_{m2}^2 := z_{m2}^2$
 $M1 := 50$ $m1 := 0..M1 - 1$ $y_{m1}^1 := z_{m1}^1$

$$\psi(z, z0, \sigma) := \frac{1}{\sigma \cdot \sqrt{2 \cdot \pi}} \cdot \exp \left[\frac{-(z - z0)^2}{2 \cdot \sigma^2} \right]$$

$\sigma := 1$

$$\Phi1(z) := \frac{1}{M1} \cdot \sum_{m1=0}^{M1-1} \psi(z, z_{m1}^1, \sigma)$$

$$\Phi2(z) := \frac{1}{M2} \cdot \sum_{m2=0}^{M2-1} \psi(z, z_{m2}^2, \sigma)$$

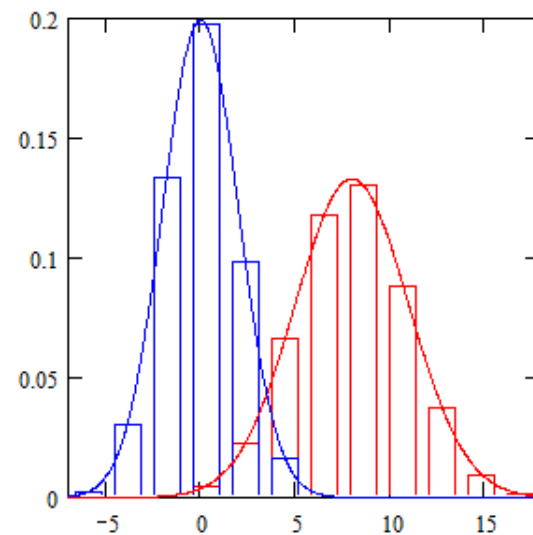
$$E(F, \Phi) := \int_{\text{lower}}^{\text{upper}} (\Phi(x) - F(x))^2 dx$$

$$\Psi1(z) := \frac{1}{n1} \cdot \sum_{j=0}^{\text{bin}-1} \text{hist}(\text{int}, z1)_j \cdot \psi(z, \text{int}_j, \sigma)$$

$$\Psi2(z) := \frac{1}{n2} \cdot \sum_{j=0}^{\text{bin}-1} \text{hist}(\text{int}, z2)_j \cdot \psi(z, \text{int}_j, \sigma)$$

$$\int_{\text{lower}}^{\text{upper}} \Phi1(x) dx = 0.997$$

$$\int_{\text{lower}}^{\text{upper}} \Phi2(x) dx = 1$$



upper = 18 bin = 12

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n1 = 500 n2 = 1000

M1 = 50 M2 = 100

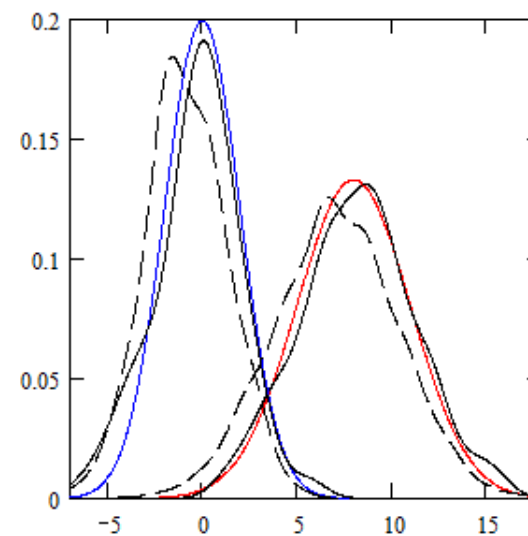
$\sigma = 1$

$$E(F1, \Phi1) = 2.461 \cdot 10^{-3}$$

$$E(F2, \Phi2) = 6.029 \cdot 10^{-4}$$

$$E(F1, \Psi1) = 0.014$$

$$E(F2, \Psi2) = 4.393 \cdot 10^{-3}$$



$M2 := 100$ $m2 := 0..M2 - 1$ $y2_{m2} := z2_{m2}$
 $M1 := 50$ $m1 := 0..M1 - 1$ $y1_{m1} := z1_{m1}$

$$\psi(z, z0, \sigma) := \frac{1}{\sigma \cdot \sqrt{2 \cdot \pi}} \cdot \exp \left[\frac{-(z - z0)^2}{2 \cdot \sigma^2} \right]$$

$\sigma := 2$

$$\Phi1(z) := \frac{1}{M1} \cdot \sum_{m1=0}^{M1-1} \psi(z, z1_{m1}, \sigma)$$

$$\Phi2(z) := \frac{1}{M2} \cdot \sum_{m2=0}^{M2-1} \psi(z, z2_{m2}, \sigma)$$

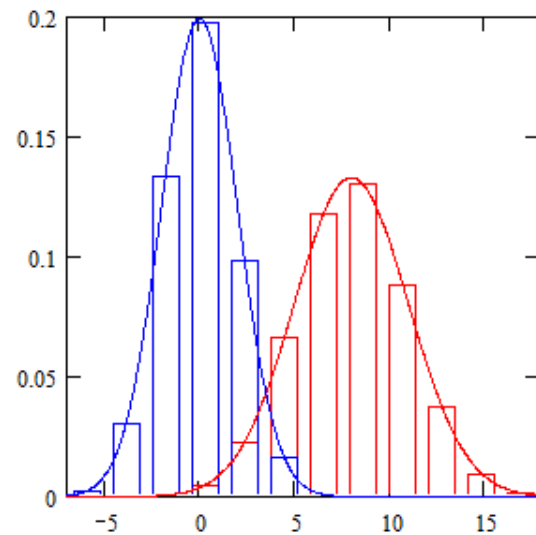
$$E(F, \Phi) := \int_{\text{lower}}^{\text{upper}} (\Phi(x) - F(x))^2 dx$$

$$\Psi1(z) := \frac{1}{n1} \cdot \sum_{j=0}^{\text{bin}-1} \text{hist}(\text{int}, z1)_j \cdot \psi(z, \text{int}_j, \sigma)$$

$$\Psi2(z) := \frac{1}{n2} \cdot \sum_{j=0}^{\text{bin}-1} \text{hist}(\text{int}, z2)_j \cdot \psi(z, \text{int}_j, \sigma)$$

$$\int_{\text{lower}}^{\text{upper}} \Phi1(x) dx = 0.985$$

$$\int_{\text{lower}}^{\text{upper}} \Phi2(x) dx = 0.997$$



upper = 18 bin = 12

lower = -7 h = 2.083

n1 = 500 n2 = 1000

M1 = 50 M2 = 100

$\sigma = 2$

$E(F1, \Phi1) = 0.012$

$E(F2, \Phi2) = 2.307 \cdot 10^{-3}$

$E(F1, \Psi1) = 0.017$

$E(F2, \Psi2) = 6.049 \cdot 10^{-3}$

