$$f_1(x) = -20e^{-0.02}\sqrt{D^{-1}\sum_{i=1}^{D} x_i^2} - e^{D^{-1}\sum_{i=1}^{D} cos(2\pi x_i)} + 20 + e$$

$$-35 \leq x_i \leq 35, f(x^*) = 0$$

$$f_2(x) = -200e^{-0.02}\sqrt{x_1^2 + x_2^2}$$

$$-32 \leq x_i \leq 32, f(x^*) = -200$$

$$f_3(x) = 200e^{-0.02}\sqrt{x_1^2 + x_2^2} + 5e^{cos(3x_1)+sin(3x_2)}$$

$$-32 \leq x_i \leq 32, x^* = (0, \approx -0.4), f(x^*) \approx -219.1418$$

$$f_4(x) = \sum_{i=1}^{D}(e^{-0.2}\sqrt{x_i^2 + x_{i+1}^2} + 3(cos(2x_i) + sin(2x_{i+1}))$$

$$-35 \leq x_i \leq 35, x = f(\{-1.479252, -0.739807\}, \{1.479252, -0.739807\}), f(x^*) \approx -3.917275$$