

Función 1: Unimodal de alta dimensionalidad (fmin: 0)

$$f_1(x) = \sum_{i=1}^n \left(\sum_{j=1}^i x_j \right)^2$$
$$n = 30 \quad [-100, 100]^n$$

Función 2: Multimodal alta dimensionalidad (fmin: -12569.5)

$$f_2(x) = \sum_{i=1}^n -x_i \sin(\sqrt{|x_i|})$$
$$n = 30 \quad [-500, 500]^n$$

Función 3: Multimodal de baja dimensionalidad (fmin: -1.031)

$$f_3(x) = 4x_1^2 - 2.1x_1^4 + \frac{1}{3}x_1^6 + x_1x_2 - 4x_2^2 + 4x_2^4$$
$$n = 2 \quad [-5, 5]^n$$