Metaheuristics
- Nonlinear Functions-

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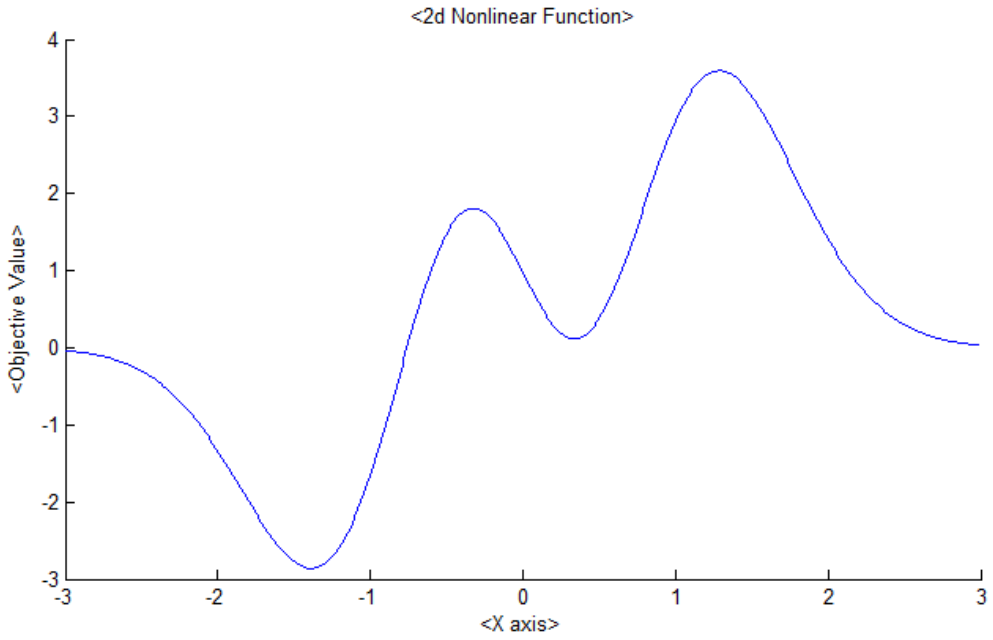
2D NL Fun.

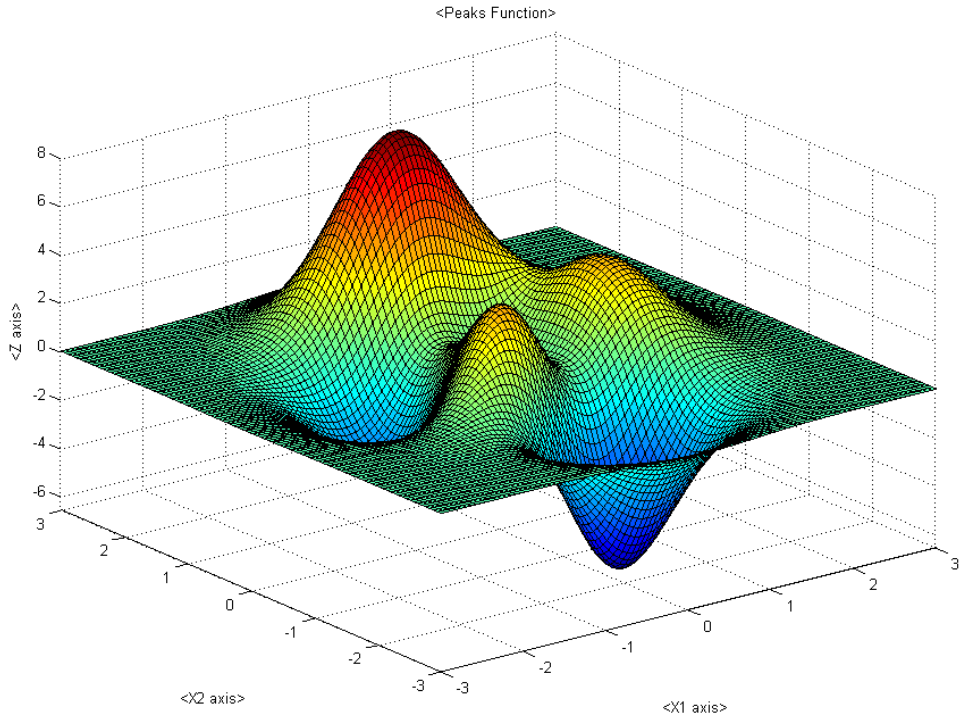
- General cases



$$y = 3(1-x)^2 e^{-(x^2+1)} - 10\left(\frac{x}{5} - x^3\right)e^{-x^2} - \frac{1}{3}e^{-(x+1)^2}$$

3D NL Fun.

- Typical Patterns



$$\begin{cases} X_{\min} = (0.23, -1.64) \\ Z_{\min} = -6.55 \end{cases}$$

$$z = 3(1-x_1)^2 e^{-(x_1^2+(x_2+1)^2)} - 10\left(\frac{x_1}{5} - x_1^3 - x_2^5\right) e^{-(x_1^2+x_2^2)} - \frac{1}{3} e^{-((x_1+1)^2+x_2^2)}$$