Equations

miqp-obj

$$\min_{\mathbf{x}} \frac{1}{2}\mathbf{x}^T Q\mathbf{x} + \mathbf{c}^T\mathbf{x} \tag{1}$$

miqp-cons

$$A\mathbf{x} \preceq \mathbf{b} \tag{2}$$

miqp-cons-bounds

$$\mathbf{b}^{lb} \preceq A\mathbf{x} \preceq \mathbf{b}^{ub} \tag{3}$$

miqp-cons-ineq

$$A^{ineq}\mathbf{x} \preceq \mathbf{b}^{ineq} \tag{4}$$

miqp-cons-eq

$$A^{eq}\mathbf{x} = \mathbf{b}^{eq} \tag{5}$$

miqp-decision-variable-bounds

$$\mathbf{x}^{lb} \preceq \mathbf{x} \preceq \mathbf{x}^{ub} \tag{6}$$

miqp-cons-greater-than

$$-A^{ineq}\mathbf{x} \preceq -\mathbf{b}^{ineq} \Leftrightarrow A^{ineq}\mathbf{x} \succeq \mathbf{b}^{ineq} \tag{7}$$

miqp-cons-eq-using-bounds

$$\mathbf{b}^{lb} = \mathbf{b}^{ub} \Rightarrow A^{eq}\mathbf{x} = \mathbf{b}^{lb} = \mathbf{b}^{ub} \tag{8}$$

milp-obj

$$\min_{\mathbf{x}} \mathbf{c}^T\mathbf{x} \tag{9}$$

milp-cons

$$A\mathbf{x} \preceq \mathbf{b} \tag{10}$$