$$\min_x \quad \mathcal{F}(x, \mathcal{Y}(x))$$
$$\text{s.t.} \quad \mathcal{C}(x, \mathcal{Y}(x)) = 0$$
$$x \geq 0,$$
$$\text{with} \quad \mathcal{R}(x, \mathcal{Y}(x)) = 0,$$