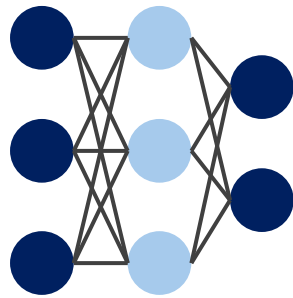Samples of problem parameters $\mathbf{\Xi}$     Solution map $\boldsymbol{\pi_\Theta}(\boldsymbol{\xi}^i)$ for pMINLP     Feasibility and integerality correction $\boldsymbol{\varphi_\Theta}(\widehat{\boldsymbol{x}}^i, \widehat{\boldsymbol{y}}^i)$     Lagrangian penalty function $\mathcal{L}(\overline{\boldsymbol{x}}^i, \overline{\boldsymbol{y}}^i)$ as loss
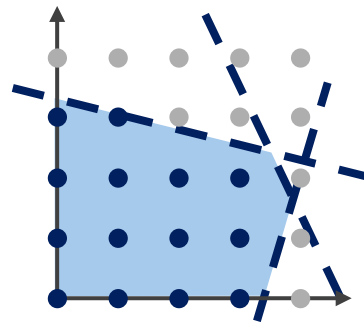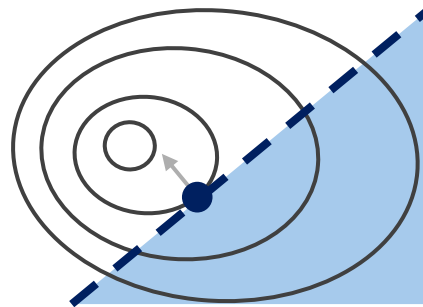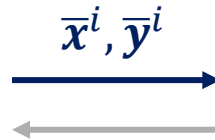
$\boldsymbol{\xi}^i$     $\widehat{\boldsymbol{x}}^i, \widehat{\boldsymbol{y}}^i$     $\overline{\boldsymbol{x}}^i, \overline{\boldsymbol{y}}^i$