

$$\varepsilon = 0.1, \mu = 0.5, \eta = 0.5$$

$$X_\mu = \{(y, z) \in \mathbb{R}^2, \mu \sinh(y) - z + z^3 \geq 0\}$$

$$\{(y, \psi_\varepsilon(y)), \psi_\varepsilon''(y) \geq 0\} \subset X_\mu$$

$$\overline{X}_\mu = \{(y, z) \in \mathbb{R}^2, \mu \sinh(y) - z + z^3 < 0\}$$

$$\{(y, \psi_\varepsilon(y)), \psi_\varepsilon''(y) < 0\} \subset \overline{X}_\mu$$

