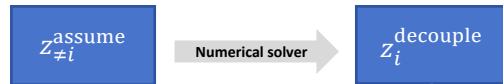
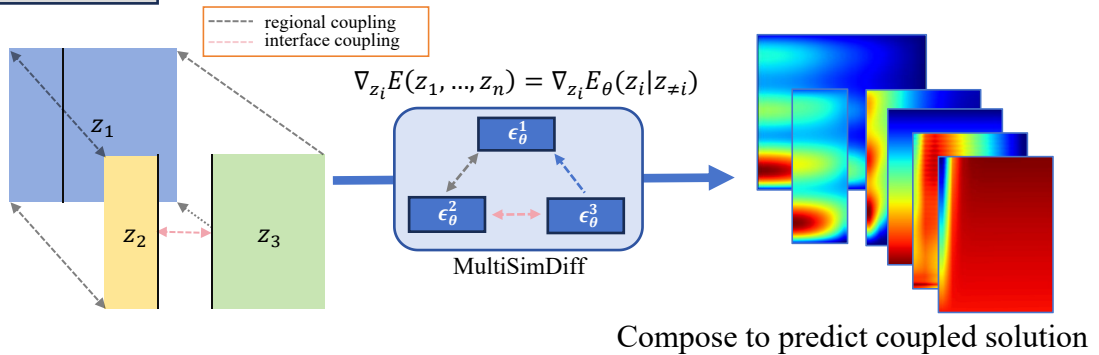


Multiphysics Simulation

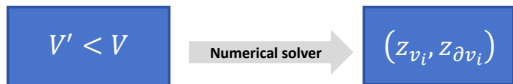


$$\theta \leftarrow \theta + \nabla_{\theta} ||\varepsilon_s - \varepsilon_{\theta}(z_{i,s}, s, z_{\neq i}^{\text{assume}})||$$

Learn $E_{\theta}(z_i|z_{\neq i})$ from decoupled data



Multi-component Simulation



$$\theta \leftarrow \theta + \nabla_{\theta} ||\varepsilon_s - \varepsilon_{\theta}(z_{v_i,s}, s, z_{\partial v_i})||$$

Learn $E_{\theta}(z_{v_i}|z_{\partial v_i})$ from smaller structure $V' < V$

