A

True dynamics

$$\dot{\mathbf{x}} = f_{\mathbf{\Phi}}(\mathbf{x}) \in \mathrm{span}\{F(\mathbf{x}), G(\mathbf{\Phi}), H(\mathbf{x}, \mathbf{\Phi})\}$$

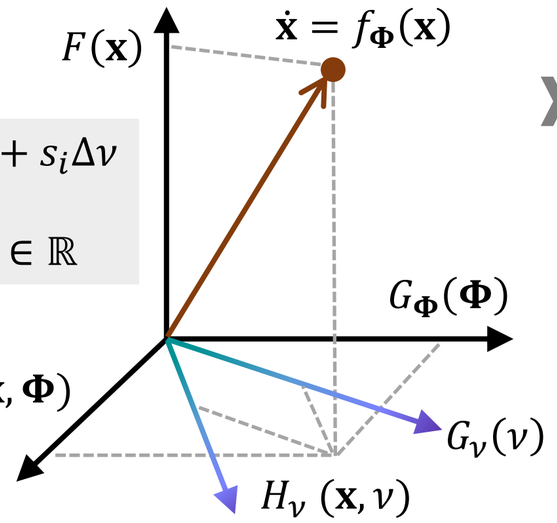
$$\mathbf{\Phi} \in \mathbb{R}^n \ , \mathbf{\Phi}_{i+1} = \mathbf{\Phi}_i + s_i \Delta \mathbf{\Phi}$$

B

Equivalent basis in model space

$$\nu_{i+1} = \nu_i + s_i \Delta\nu$$

$$\forall \nu_1, \Delta\nu \in \mathbb{R}$$



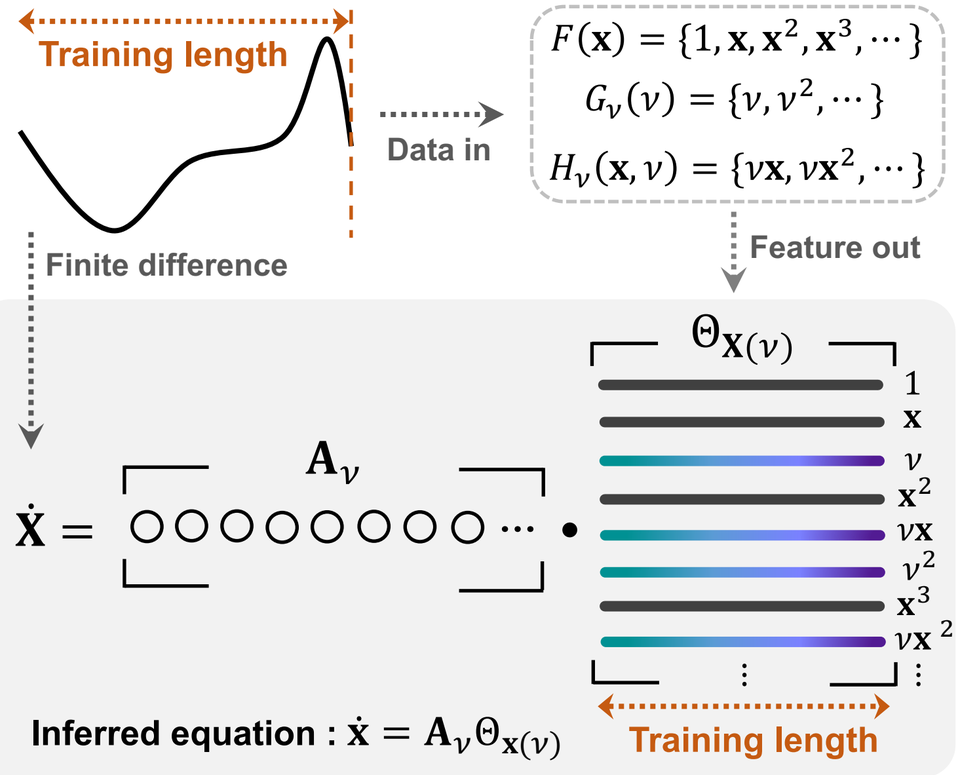
C

Discretizing ν for grid search

$\nu_1^{(1)}$	$\nu^{(1,1)}$	$\cdots$	$\nu^{(1,N)}$
$\vdots$	$\vdots$	$\nu^{(P,Q)}$	$\vdots$
$\nu_1^{(M)}$	$\nu^{(M,1)}$	$\cdots$	$\nu^{(M,N)}$
	$\Delta\nu^{(1)}$	$\cdots$	$\Delta\nu^{(N)}$

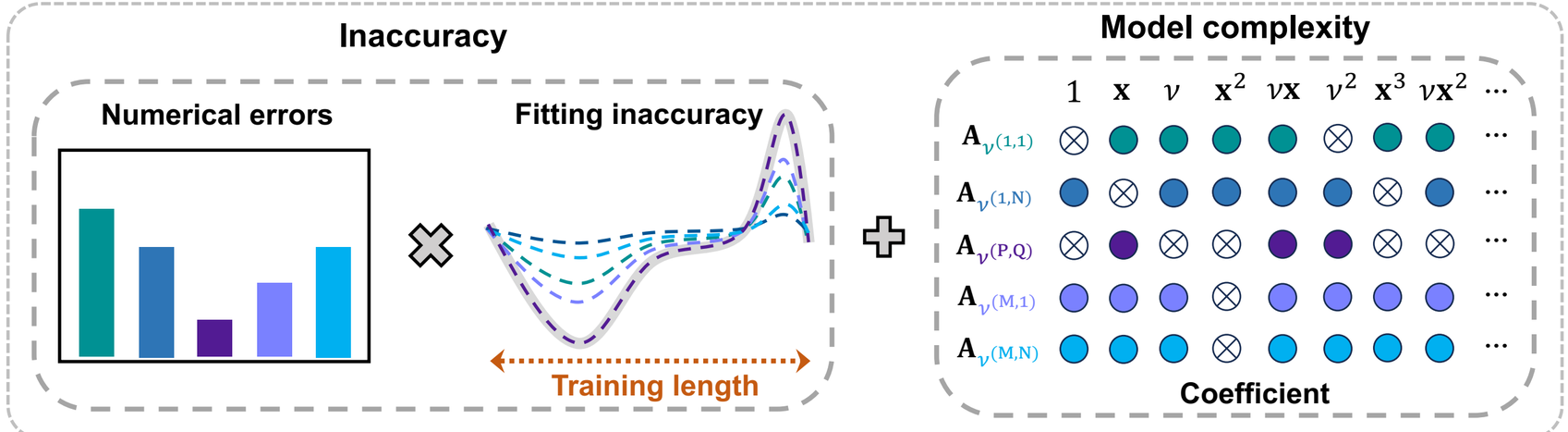
D

Solving coefficient matrix $\mathbf{A}_\nu$ for each grid



E

Grid search result : $\nu^{(P,Q)}$ (Minimal εAIC)



F

Inferred equation with optimal ν