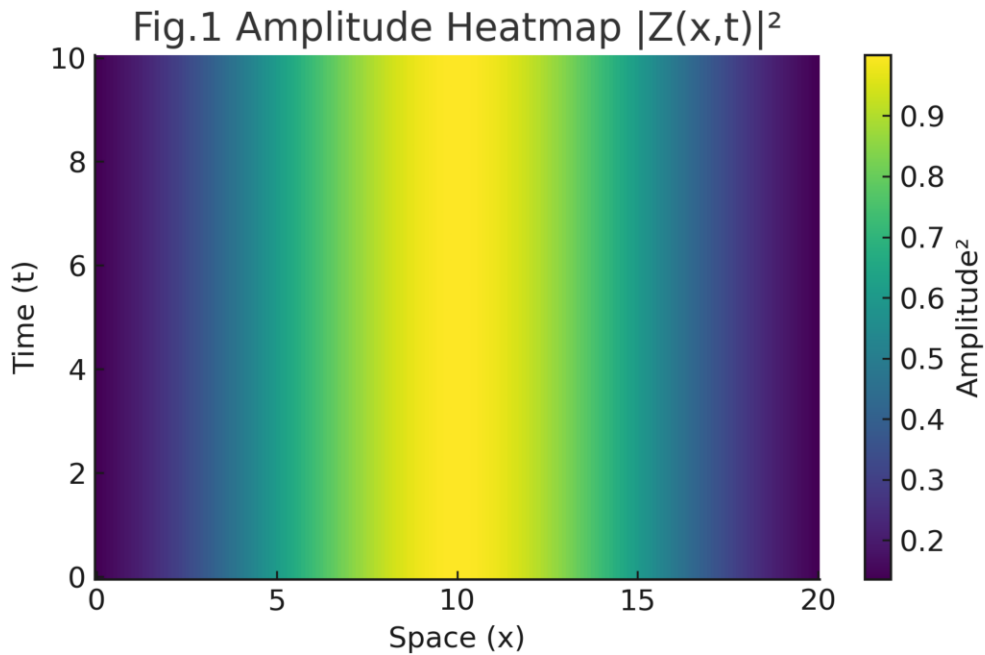


Fig.1 Amplitude Heatmap



## Fig.2 Equation & Parameters

### Fig.2 CGL Equation and Parameters

$$\frac{\partial Z}{\partial t} = \mu Z + (1 + ic)\nabla^2 Z - (1 + i\gamma)|Z|^2 Z$$

$\mu$ : Growth rate

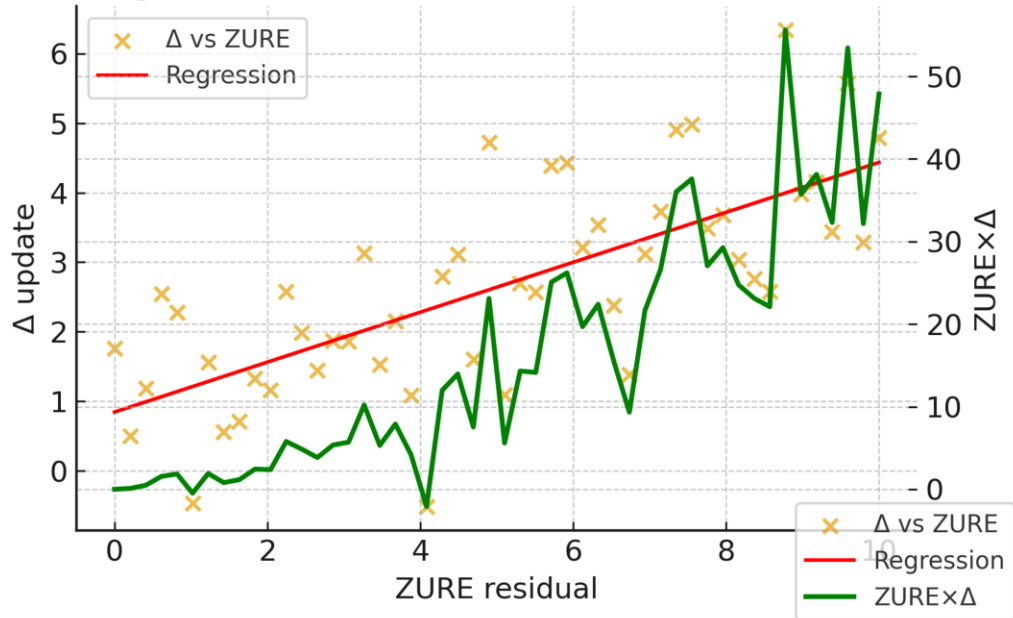
$c$ : Dispersion

$D$ : Diffusion coeff.

$\gamma$ : Nonlinear saturation

Fig.3 Correlation (ZURE vs  $\Delta$  + Product)

Fig.3 Correlation: ZURE vs  $\Delta$  with Product



## Fig.4 Variational Update Pipeline

### Fig.4 Variational Update Pipeline

