Data input and pre-processing ⟩ Spatially informed embedding and initial alignment ⟩ Refining alignment by pseudo pairing ⟩ Reconstruction and generating pesudo paring

Modality 1

$\hat{X}_{2\to1}$

Pseudo pairing of X_2

Decoder

GAT encoder

X_1
Features$_1$
Spots$_1$

$Z_{2\to1}$

$\hat{X}_{2\to1\to2}$

$\hat{X}_{2\to1}$

Z_1 Z_1 $\hat{X}_1$

Guidance graph   ? ?

Z_2 Z_2

Z_2

Spots$_2$
X_2
Features$_2$

$\hat{X}_2$

$\hat{X}_{1\to2}$

GAT encoder

$Z_{1\to2}$

$\hat{X}_{1\to2\to1}$

Modality 2

Pseudo pairing of X_1

$\hat{X}_{1\to2}$

Decoder