Spectrum of graph Laplacians

$\mathbf{u}_0$ $\mathbf{u}_1$ $\mathbf{u}_{50}$
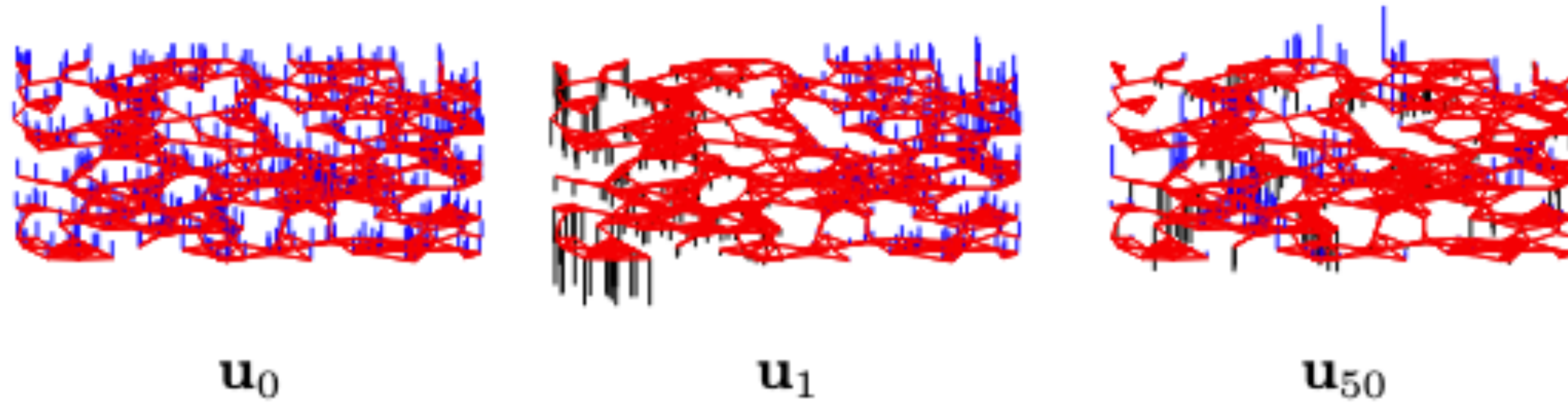
Shuman et al. (2013)

Edge flow regularizations

ℓ_1, ℓ_2 **regularization**

- Tikhonov regularization

$$\|\mathbf{y} - \mathbf{f}\|_2^2 + \gamma \cdot \|\text{div/curl}\|_2^2$$

- Trend filtering

$$\|\mathbf{y} - \mathbf{f}\|_2^2 + \gamma \cdot \|\text{div/curl}\|_1$$