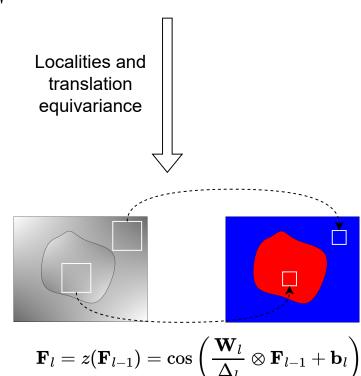


Q-samples  $oldsymbol{\omega} \sim p(oldsymbol{\omega})$  $b \sim \mathrm{U}(0,2\pi)$ 

 $k(\mathbf{x} - \mathbf{x}') = \langle \phi(\mathbf{x}), \phi(\mathbf{x}') 
angle_{\mathcal{H}} pprox \mathbf{z}(\mathbf{x}')^{ op} \mathbf{z}(\mathbf{x}')$ **Bochner's Theorem**  $k(\mathbf{x} - \mathbf{x}') = \int_{\mathbb{R}^{ ilde{O}}} p(oldsymbol{\omega}) \exp(ioldsymbol{\omega}^ op(\mathbf{x} - \mathbf{x}')) doldsymbol{\omega} = \mathbb{E}_{oldsymbol{\omega}}ig\{ \exp(ioldsymbol{\omega}^ op \mathbf{x}) \exp(-ioldsymbol{\omega}^ op \mathbf{x}) ig\}$ 



 $z(\mathbf{x}) = \sqrt{rac{2}{Q}ig[\cos(oldsymbol{\omega}_1^ op \mathbf{x} + b_1), \ldots, \cos(oldsymbol{\omega}_Q^ op \mathbf{x} + b_Q)ig]^ op}$