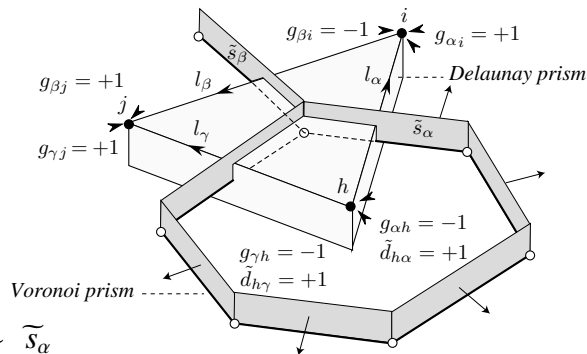
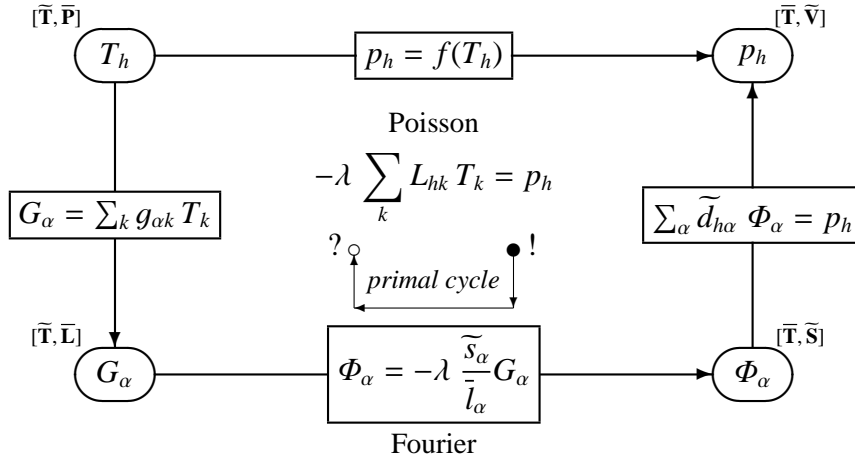


Stationary heat conduction

algebraic formulation, global variables

configuration variables
 primal complex in space
 dimensions: $[\Theta]$
 SI units: kelvin

source variables
 dual complex in space
 dimensions: $[ML^2T^{-2}]$
 SI units: watt



$$L_{hk} \triangleq - \sum_{\alpha} \tilde{d}_{h\alpha} \frac{\tilde{s}_{\alpha}}{l_{\alpha}} g_{\alpha h}$$

- T_h thermodynamic temperature at the point $\bar{\mathbf{p}}_h$
- G_{α} relative temperature associated with $\bar{\mathbf{l}}_{\alpha}$
- p_h heat production rate associated with the dual cell $\tilde{\mathbf{v}}_h$
- Φ_{α} heat current associated with the dual cell $\tilde{\mathbf{s}}_{\alpha}$
- L_{hk} discrete Laplacian
- λ thermal conductivity

