

Conmech documentation

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[LSM] Local stiffness matrix

$$w_e^{kl} = \left[\int_{T_e} \frac{\partial \phi_i}{\partial x_k} \frac{\partial \phi_j}{\partial x_l} dx \right]_{i,j=1,\dots,N_e} \quad \forall k, l \in \{1, 2\}$$

Where e is the index of the element
 N_e is number of vertices of element e
 T_e is the surface of the mesh element e
 ϕ_j is j -th base function of the element e