

```

1 for triangle K in grid.triangles:
2     for DoF  $\phi_i$  in K.dofs:
3          $b_h[\phi_i.\text{globalIndex}] += \int_K \hat{\phi}_i \left| \det \left( \hat{\nabla} T_K(\hat{x}) \right) \right| d\hat{x}$ 
4     for DoF  $\phi_j$  in K.dofs:
5          $A_h[\phi_i.\text{globalIndex}, \phi_j.\text{globalIndex}] += ($ 
6              $a \int_K \left( \hat{\nabla} T_K(\hat{x})^{-T} \hat{\nabla} \hat{\phi}_i \right) \cdot \left( \hat{\nabla} T_K(\hat{x})^{-T} \hat{\nabla} \hat{\phi}_j \right) \left| \det \left( \hat{\nabla} T_K(\hat{x}) \right) \right| d\hat{x} +$ 
7              $c \int_K \hat{\phi}_i \cdot \hat{\phi}_j \left| \det \left( \hat{\nabla} T_K(\hat{x}) \right) \right| d\hat{x}$ 
8         )

```