



Figure 1: Illustration for a construction of $\tilde{\kappa}$, where $\mathbf{k}_{p,q}$, $\mathbf{k}_{p-1,q}$, $\mathbf{k}_{p+1,q}$, $\mathbf{k}_{p,q-1}$ and $\mathbf{k}_{p,q+1}$ are values of κ on the located fine elements respectively, the fine element in the top-left corner of K_i is highlighted with four edges $e_1 \sim e_4$ surrounded, $\mathbf{v}_{p,q}$, $\mathbf{v}_{p+1,q}$ and $\mathbf{v}_{p,q-1}$ are values of $v \in W_h(K_i)$ on the located fine elements respectively.