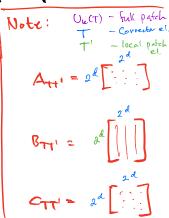
Coarse scale quantities Base quantities A,B,C

 $A_{\tau;j} = (\widehat{A}_{\tau} \nabla \lambda_{j}, \nabla \lambda_{i})_{\tau}$ $B_{\tau\tau'ij} = (\widehat{A}_{\tau} \nabla \widehat{Q}_{\tau} \lambda_{j}, \nabla \lambda_{i})_{\tau'}$ $C_{\tau'ii} = (A_{\tau} \nabla \bar{Q}_{\tau} \lambda_{i}, \nabla \bar{Q}_{\tau} \lambda_{i})_{\tau'}$



1. Krij - Petron-Galerlein Stiffness madrir

KTij = (ATD(XX)-QXj), Thi) ULCT)

= A Tioq(j) = BTT'ioq(j)

TI maps dots from T' to ULITI

Note: only hiptory country to better one country hiptory where country hiptory.

KT = Ext

where of(j) maps dots from T' to ULITI

2. LTTIII - Local error metrix

LTT'ij = $(A_T \nabla (x_T - Q_T) \lambda_j, \nabla (x_T - Q_T) \lambda_i)$ = $\int C_{TT'ij}$ $T \neq T$ [Note: Only $\lambda_{i,j\neq 0}$ and $\lambda_{i,j\neq 0}$ gives $C_{outributions}$] $L_{TT'} = \int C_{TT'ij} - B_{TT'ij} + A_{Tij} = T$