

EE610
10/18/00

$$T(\kappa) = [\kappa_1, \kappa_2, \kappa_3, \kappa_4] \begin{bmatrix} 1 \\ \kappa \\ d(\kappa) \\ \kappa \cdot d(\kappa) \end{bmatrix} \times \frac{1}{[d(\kappa)]^2}$$

$$A = \left[\begin{array}{cc|cc} 0 & 1 & 0 & 0 \\ -d_0 & -d_1 & 1 & 0 \\ \hline 0 & 0 & 0 & 1 \\ 0 & 0 & -d_0 & -d_1 \end{array} \right], \det(\kappa I_4 - A) = d(\kappa)^2$$

$$d(\kappa) = \kappa^2 + d_1 \kappa + d_0$$

$$T(\kappa) = \frac{\kappa_1 + \kappa_2 \kappa + \kappa_3 d(\kappa) + \kappa_4 \kappa d(\kappa)}{d(\kappa)^2} = \frac{N(\kappa)}{d(\kappa)^2}$$

$$N(\kappa) = \kappa_1 + \kappa_2 \kappa + \kappa_3 \kappa^2 + \kappa_3 d_1 \kappa + \kappa_3 d_0 + \kappa_4 \kappa^3 + \kappa_4 d_1 \kappa^2 + \kappa_4 d_0 \kappa$$

$$= \kappa_1 + [\kappa_2 + \kappa_3 d_1 + \kappa_4 d_0] \kappa + \kappa_3 d_0 + [\kappa_3 + \kappa_4 d_1] \kappa^2 + \kappa_4 \kappa^3$$