

$$\begin{bmatrix} 11.0 & 5.5 & 3.85 & 3.025 \\ 5.5 & 3.85 & 3.025 & 2.5333 \\ 3.85 & 3.025 & 2.5333 & 2.20825 \\ 3.025 & 2.5333 & 2.20825 & 1.987405 \end{bmatrix} \begin{bmatrix} a_0 \\ a_1 \\ a_2 \\ a_3 \end{bmatrix} = \begin{bmatrix} 6.023 \\ 4.28907 \\ 3.408407 \\ 2.8773135 \end{bmatrix}$$

$$a_1 = -0.000129, a_2 = 1.004383, a_3 = -0.019651, a_4 = 0.190405$$

$$P_3(x) = -0.000129 + 1.004383x - 0.019651x^2 + 0.190405x^3$$

$$f(x) = \sinh(x) = x + \frac{x^3}{3!} + \dots$$

NPTTEL