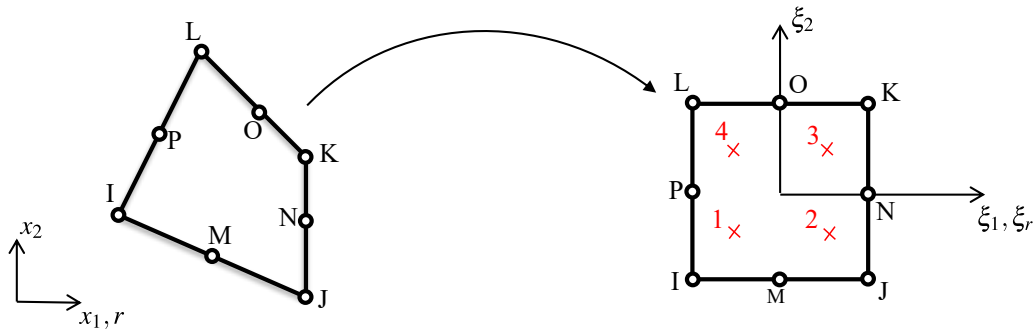# PLANE 183 - QUADRILÁTERO QUADRÁTICO, 8 NÓS, 4 PONTOS DE GAUSS (Q8)

$$\underline{N} = \frac{1}{4} \begin{Bmatrix} (1-\xi_1)(1-\xi_2)(-\xi_1-\xi_2-1) \\ (1+\xi_1)(1-\xi_2)(\xi_1-\xi_2-1) \\ (1+\xi_1)(1+\xi_2)(\xi_1+\xi_2-1) \\ (1-\xi_1)(1+\xi_2)(-\xi_1+\xi_2-1) \\ 2(1-\xi_1^2)(1-\xi_2) \\ 2(1+\xi_1)(1-\xi_2^2) \\ 2(1-\xi_1^2)(1+\xi_2) \\ 2(1-\xi_1)(1-\xi_2^2) \end{Bmatrix}$$

$$\underline{W} = \begin{Bmatrix} 1 \\ 1 \\ 1 \\ 1 \end{Bmatrix}$$

$$[\underline{\xi_{i_p}}] = \sqrt{\frac{1}{3}} \begin{bmatrix} -1 & -1 \\ 1 & -1 \\ 1 & 1 \\ -1 & 1 \end{bmatrix}$$