

Chapter 1

Notes

1.1 Elastic Constants

Stress and strain tensors are symmetric. Can be written in Voight notation.

$$\vec{A} = \begin{bmatrix} A_{xx} & A_{xy} & A_{xz} \\ A_{yx} & A_{yy} & A_{yz} \\ A_{zx} & A_{zy} & A_{zz} \end{bmatrix} \quad (1.1)$$

Voight notation

$$\tilde{A} = \left(A_{xx}, A_{yy}, A_{zz}, A_{yz}, A_{xz}, A_{xy} \right) \equiv \left(A_1, A_2, A_3, A_4, A_5, A_6 \right) \quad (1.2)$$