

## 12 Properties of Conjugate of a matrix

- $\overline{\overline{A}} = A$
- $\overline{A + B} = \overline{A} + \overline{B}$
- $\overline{AB} = \overline{A}\overline{B}$
- $\overline{A^T} = \overline{A}^T$
- If  $k$  is a real number, then  $\overline{kA} = k\overline{A}$
- If  $c$  is a complex number, then  $\overline{cA} = \overline{c}\overline{A}$
- If  $A$  is invertible, then  $\overline{A^{-1}} = (\overline{A})^{-1}$

type	$A = [1 + i \quad 2; i \quad 2 + i]$	
type	$\text{conj}(A)$	
type	$A * \text{conj}(A)$	
type	$\text{inv}(A)$	
type	$\text{inv}(A)$	
type	$\text{det}(A)$	
type	$[V \quad W] = \text{eig}(A)$	