

## Signal behandling og Matematik I

MM4 – Special real and complex Matrices. Eigenbasis. Diagonalization. Quadratic Forms

### **Topics to prepare:**

Symmetric, skew symmetric, and orthogonal matrices

Eigenvalues of symmetric and skew symmetric matrices

Orthogonal transformations and orthogonal matrixes; properties of orthogonal transformations

Eigenvalues of orthogonal matrices

Hermitian, skew-hermitian, and unitary matrices

Eigenvalues of hermitian, skew-hermitian, and unitary matrices

Eigenbasis

Diagonalization of a matrix

Quadratic Forms