Chapter 1. VECTOR ANALYSIS

- Definitions. Elementary Approach
- Rotation of the Coordinate Axes
- Scalar or Dot Product
- Vector or Cross Product
- Triple Scalar Product, Triple Vector Product
- Gradient
- Divergence
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- Successive Applications of Gradient
- Vector Integration
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- Potential Theory
- Gauss Law, Poisson Equation
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Chapter 4. DETERMINANTS and MATRICES

- Determinants
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- Orthogonal Matrices
- Hermitian Matrices. Unitary Matrices
- Diagonalization of Matrices
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