Cholesky Factorization of Matrices

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Abstract

Cholesky factorization is a type of matrix factorization which is used for solving system of linear equations. In this paper, we will study the factorization of real positive definite matrices by using Cholesky factorization. This type of factorization is in the form $A = LL^T$ where L is lower triangular matrix. First, the diagonalization of a matrix will be presented, second, positive definite matrix and its properties will be discussed. Finally, the Cholesky factorization of real positive definite matrices will be discussed in numerically point of view.

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