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Using Eigenvalues and Eigenvectors in Population Growth and Stability Obtaining

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Abstract : The Knowledge of the population growth of a nation is paramount to national planning. The population of a place is studied and a model developed over a period of time, Matrices is used to form model for population growth. The eigenvalue ƛ of the matrix A and its corresponding eigenvector X is such that AX = ƛX is calculated. The stable age distribution of the population is obtained using the eigenvalue and the characteristic polynomial. Hence, estimation could be made using eigenvalues and eigenvectors.

Keywords : eigenvalues, eigenvectors, population, growth/stability
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