

In the present work we study the connections between the moment problem and the modern iterative methods. A short historical review of the study of the moment problem is given. Some different definitions of the moment problem are shown. Motivation and results of some mathematicians, who used the moment problem in their work are discussed. Connections between different definitions of the moment problem, Gauss-Christoffel quadrature, orthogonal polynomials, continued fractions, Sturm-Liouville problem, reduction of the model in linear dynamical systems and some of the iterative methods like Lanczos and Conjugate gradients method are explained.