



ÇANKAYA UNIVERSITY

Department of Mathematics

SEMINAR

Approximation properties of a moment-based modification of Bernstein operators on a symmetric interval

Speaker: Şule Yüksel Güngör

Date: 27.03.2026

Time: 13:30

Place: R213-Seminar Room

Abstract: This talk introduces a moment-based modification of classical Bernstein operators on a symmetric interval. The construction combines a domain transformation with a second central moment structure to achieve improved approximation properties. Approximation is established via a Korovkintype theorem. Error estimates are given in terms of modulus of continuity, and the rate of convergence is obtained in Lipschitz-type spaces. A Voronovskaja-type theorem describes the asymptotic behavior of the operators. Numerical examples are presented to illustrate the effectiveness of the proposed operators.

Keywords: Bernstein operators, rate of convergence, modulus of continuity, Voronovskaja-type theorem.

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