ON PARTIAL DERIVATIVES OF MULTIVARIATE BERNSTEIN POLYNOMIALS

A. Yu. Veretennikov and E. V. Veretennikova

It is shown that Bernstein polynomials for a multivariate function converge to this function along with partial derivatives provided that the latter derivatives exist and are continuous. This result may be useful in some issues of stochastic calculus.

Key words and phrases: multivariate Bernstein polynomial, partial derivative, convergence.

Veretennikov Aleksandr Yur'evich
    University of Leeds, Leeds, LS2 9JT UK.
    Higher School of Economics,
    Moscow, 101000 Russia.
    Institute for Information Transmission Problems,
    Moscow, 127051 Russia.
    E-mail: a.veretennikov@leeds.ac.uk

Veretennikova Evgeniya Vasil'evna
    Moscow State Pedagogical University,
    Moscow, 111020 Russia.