

# APPROXIMATION BY POLYNOMIAL POSSIBILISTIC INTEGRAL OPERATORS\*

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Dedicated to Dr. Vasile Drăgan on the occasion of his 70<sup>th</sup> anniversary

## Abstract

In this paper we obtain quantitative estimates in approximation by the so-called polynomial possibilistic operators of Durrmeyer type and of Kantorovich type, whose expressions are obtained from their classical correspondents by replacing the usual integral with the possibilistic integral.

**MSC:** 41A36, 41A25, 28E10, 28A25.

**keywords:** Theory of possibility, nonlinear possibilistic integral, max-product (possibilistic) operators, possibilistic Durrmeyer polynomial operators, possibilistic Kantorovich polynomial operators.

## 1 Introduction

Recently, in a series of papers we have started the study of the approximation properties of some nonlinear integral operators obtained from the linear ones by replacing the classical Lebesgue integral by its nonlinear extension called

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