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# Positive linear operators and continuous functions on unbounded intervals

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## Abstract

We present a survey on approximation by positive linear operators of continuous unbounded functions in weighted spaces. Some new results and problems are included.

**Keywords:** positive linear operators, weighted spaces, Korovkin-type theorems, quantitative estimates..

**MSC:** Primary 41A36, 41A25; Secondary 41A02.

## §1. Introduction

There are several papers devoted to study positive linear operators in spaces containing unbounded functions, but most of them deal with particular sequences. A general theory is far from been developed. As simple examples show, an immediate analog of the Bohman-Korovkin theorem does not hold in the general case, some restrictions are needed. Sometimes authors consider only convergence on compact sets, but more general results can be presented when we restrict the growth of the function.

The aim of this paper is to provide a collection of ideas (some of them are not new) related with approximation by means of positive linear operators, in spaces of continuous functions on a non-compact interval  $I$  of the real line. We deal with general sequences of operators rather than particular ones.

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