

# Turkish Journal of Mathematics

Turkish Journal

of

Mathematics

 [Keywords](#)  
 [Authors](#)



[math@tubitak.gov.tr](mailto:math@tubitak.gov.tr)

[Scientific Journals Home](#)  
[Page](#)

Modified Szász-Mirakjan-Kantorovich Operators Preserving Linear Functions

Oktay DUMAN

TOBB Economics and Technology University,

Faculty of Arts and Sciences,

Department of Mathematics,

Söğütözü TR-06530, Ankara, TURKEY

e-mail: oduman@etu.edu.tr

Mehmet Ali ÖZARSLAN

Eastern Mediterranean University,

Faculty of Arts and Sciences,

Department of Mathematics,

Gazimagusa, Mersin 10, TURKEY

e-mail: mehmetali.ozarslan@emu.edu.tr

Biancamaria Della VECCHIA

Dipartimento di Matematica,

Università di Roma "La Sapienza"

Piazzale Aldo Moro 2,

00185 Roma, ITALY

e-mail: biancamaria.dellavecchia@uniroma1.it

**Abstract:** In this paper, we introduce a modification of the Szász-Mirakjan-Kantorovich operators, which preserve the linear functions. This type of operator modification enables better error estimation on the interval  $[1/2, +\infty)$  than the classical Szász-Mirakjan-Kantorovich operators. We also obtain a Voronovskaya-type theorem for these operators.

**Key Words:** Szász-Mirakjan operators, Szász-Mirakjan-Kantorovich operators, the Korovkin-type approximation theorem, modulus of continuity, Lipschitz class functionals, Voronovskaya type theorem.

---

Turk. J. Math., **33**, (2009), 151-158.

Full text: [pdf](#)

Other articles published in the same issue: [Turk. J. Math., vol.33, iss.2.](#)