

**Dedić, Lj.; Matić, M.; Pečarić, J.; Vukelić, A.**

**On generalizations of Ostrowski inequality via Euler harmonic identities.** (English)

Zbl 1018.26015

J. Inequal. Appl. 7, No. 6, 787-805 (2002).

A sequence  $(P_k)$  of polynomials is said to be harmonic if  $P_0 = 1$  and  $P'_k = P_{k-1}$  for all  $k$ . The authors prove a generalized version of the Euler-MacLaurin sum formula for the midpoint quadrature method, replacing the Bernoulli polynomials by an arbitrary harmonic sequence of polynomials. As a consequence, a generalized Ostrowski inequality is derived.

Reviewer: Kai Diethelm (Braunschweig)

**MSC:**

26D15 Inequalities for sums, series and integrals

41A55 Approximate quadratures

Cited in 4 Documents

**Keywords:**

Ostrowski inequality; harmonic polynomials; generalized Euler-MacLaurin formula

**Full Text:** [DOI](#)