

1172-41-91

Liudmyla Kryvonos* (lkryvono@kent.edu). *"Near-best" polynomial approximation of harmonic functions on compact sets in \mathbb{C} .*

For a function u that is continuous on a compact set K and harmonic in its interior we construct a sequence of polynomial approximants that give almost optimal rate of approximation on K , and in the interior points of K converge faster than on the whole of K . We also show that the geometric convergence inside K is possible for sets whose boundary is an analytically bounded Jordan domain. (Received August 18, 2021)