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**Polynomial Approximation on Compact Sets  
Bounded by Dini-Smooth Arcs**

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**Abstract.** For a compact set  $K$  which is the closure of a Jordan domain, the Faber operator provides a well-known tool for deriving results on the error of uniform polynomial approximation on  $K$ . We show that the corresponding methods also work for compact sets which are not the closure of a Jordan domain. In particular, the cases of so-called touching domains and of Jordan arcs are considered.

**Keywords.** Faber operator, Dini-smoothness, uniform approximation, touching domains, Jackson theorem.

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