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Malik Younsi*, malik.younsi@gmail.com. *Fekete polynomials and shapes of Julia sets.*

We prove that a nonempty, proper subset of the complex plane can be approximated in a strong sense by polynomial filled Julia sets if and only if the set is bounded and its interior has connected complement. The proof that such a set is approximable by filled Julia sets is constructive and relies on Fekete polynomials; illustrative examples will be presented. (Received September 16, 2019)