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**Density in approximation theory.**

Surv. Approx. Theory 1, 1-45, electronic only (2005).

Approximation theory is concerned with the ability to approximate functions by simpler and more easily calculated functions. It is important that the set of functions from which one plans to approximate is dense in the set of continuous functions. In this interesting work, the author surveys some of the main density results and density methods. Starting with the Weierstrass approximation theorems, he discusses numerous generalizations (as Hahn-Banach theorem, Stone-Weierstrass theorem, Bohman-Korovkin theorem, Müntz theorem, Mergelyan theorem). Many historical hints and nice proofs of main results are presented. The author mainly considers univariate functions. Finally, some multivariate density results are given.

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