

Generalized B-Splines: Structure and Properties

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SUMMARY

The classical polynomial and exponential cardinal B-splines are generalized to include complex and Clifford-valued orders. We highlight some properties of these new B-splines and exhibit connections to fractional integrals and derivatives. The problem of cardinal interpolation is addressed in the case of Clifford-valued polynomial B-splines and a sampling and interpolation theorem is derived.

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