

EXCEPTIONAL POLYNOMIALS AND HOW TO FIND THEM

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Exceptional orthogonal polynomials arise as eigenfunctions of Sturm-Liouville problems and form complete bases in Hilbert spaces despite the fact of missing some degrees. Since 2009, many pages have been written about their construction and their properties, but the book is still unfinished.

In this talk, we will review some of the last lines added to the narrative of exceptional polynomials and what is missed to finish the corresponding chapters.

Joint work with D. Gómez-Ullate (IE University, Spain) and R. Milson (Dalhousie University, Canada).