

## An analogue of Krall orthogonal polynomials on the simplex

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With a similar construction as the one done by Koornwinder in 1975, we obtain a mutually orthogonal basis with respect to a Krall inner product on the simplex. Furthermore, using properties of the polynomials in one variable we get some interesting properties of these polynomials on the simplex.

This is a joint work with Antonia M. Delgado, Teresa E. Pérez and Miguel A. Piñar.

### References

- [1] C. F. DUNKL, Y. XU, *Orthogonal polynomials of several variables*, Encyclopedia of Mathematics and its Applications 81, Cambridge University Press, 2001.
- [2] T. H. KOORNWINDER, Two variable analogues of the classical orthogonal polynomials, *Theory and Application of Special Functions*, R. Askey Editor, Academic Press (1975), 435–495.

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