

# Matrix representation of real and hypercomplex Appell polynomials

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## Abstract

In [1] a unified approach to the matrix representation of different types of real Appell polynomials was developed, based on a special matrix which has only the natural numbers as entries. This matrix, also called *creation matrix*, generates the Pascal matrix and allows to consider a set of Appell polynomials as solution of a first order vector differential equation with certain initial conditions. Besides a new elementary construction of the monogenic exponential function studied in [2], we analogously derive examples of different sets of *non-homogenous* hypercomplex Appell polynomials given by its matrix representation.

## References

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