



**UPO** UNIVERSITÀ DEL PIEMONTE ORIENTALE



**DiSIT**  
DIPARTIMENTO  
DI SCIENZE  
E INNOVAZIONE  
TECNOLOGICA

## SEMINARI RICERCA E FORMAZIONE

Mercoledì 10 Giugno 2026

ore 15:30-16:30

AULA 205

SEMINARIO/CORSO APERTO A:  
Docenti | Teachers, Borsisti | Research  
Fellows, Assegnisti | Postdoctoral  
researchers, Dottorandi | PhD students,  
Studenti | Students

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Inglese | English

# Coefficient properties of hyperholomorphic polynomials generalizing the holomorphic powers

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This talk explores a class of hyperholomorphic polynomials within Clifford algebras that generalize classical holomorphic powers to higher dimensions. We examine two distinct structural representations of these polynomials to reveal the properties of their underlying coefficients. One of these representations gives rise to generalized Vietoris numbers, which are essential for the positivity of certain trigonometric and ultraspherical polynomial sums. In the other representation, the coefficients constitute a partition of unity. Moreover, the bijection between these two sets of coefficients generates Wigner numbers, which appear in quantum mechanics, especially in the large quantum number limit.

*Il seminario è promosso dalla Prof. Lidia Aceto*

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