



A Combinatorial Approach to the Algebra of Matrices and Hypermatrices with Applications

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We present a combinatorial approach to the algebra of matrices and hypermatrices. We illustrate how the proposed hypermatrix algebra allows for generalizations of combinatorial interpretations and applications of the classical Cayley-Hamilton theorem.

Biography

Edinah Gnan obtained his BS degree in mathematics and physics in 2005 from the University of Montreal. He graduated with a PhD in computer science from Rutgers University in 2013. From 2013 to 2014, Edinah had a joint postdoctorate at the Institute for Advanced Study and the Princeton University Center for Computational Intractability. Edinah is now a Golomb visiting assistant professor of mathematics at Purdue University. His research interests lie at the intersection of multilinear algebra, combinatorics and computational complexity.