

1135-52-1102

Federico Castillo and **Fu Liu*** (fuliu@math.ucdavis.edu). *Uniqueness of Berline-Vergne's valuation.*

Berline-Vergne constructs a valuation that assigns values to faces of polytope, and it satisfies what we call "McMullen's formula". There are different solutions to the McMullen's formula. Any solution provides a way to write the coefficients of the Ehrhart polynomial of a polytope as positive sums of these values.

We study the Berline-Vergne's valuation on generic permutohedra, and show that their construction is the unique solution to the McMullen's formula that is symmetric about the coordinates. This is joint work with Federico Castillo. (Received September 19, 2017)