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Title: Alexander duals of multipermutohedron ideals

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Abstract: An Alexan

An Alexander dual of a multipermutohedron ideal has many combinatorial properties. The standard monomials of an Artinian quotient of such a dual correspond bijectively to some λ -parking functions, and many interesting properties of these Artinian quotients are obtained by Postnikov and Shapiro (Trans. Am. Math. Soc. 356 (2004) 3109–3142). Using the multigraded Hilbert series of an Artinian quotient of an Alexander dual of multipermutohedron ideals, we obtained a simple proof of Steck determinant formula for enumeration of λ -parking functions. A combinatorial formula for all the multigraded Betti numbers of an Alexander dual of multipermutohedron ideals are also obtained.

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