
A type B analog of the Lie representation

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Résumé

We describe a type B analog of the much studied Lie representation of the symmetric group. The n th Lie representation of S_n restricts to the regular representation of S_{n-1} , and our generalization mimics this property. Specifically, we construct a representation of the type B Weyl group B_n that restricts to the regular representation of B_{n-1} . We view both of these representations as coming from the internal zonotopal algebra of the Gale dual of the corresponding reflection arrangements.

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