1014-05-498Andrew Mathas and Rosa C Orellana* (Rosa.C.Orellana@Dartmouth.edu), Mathematics
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In this talk we introduce two subalgebras of the group algebra of the complex reflection groups. Like Solomon's descent algebra, our algebras are defined to be the *R*-span of certain sets of "distinguished" coset representatives, where the distinguished coset representatives are coset representatives of minimal length. Our two different algebras arise from two different length functions which we define on the underlying complex reflection group. We also give combinatorial descriptions in terms of colored words. If time permits we will describe some of the properties of these algebras. We remark that these algebras differ from the Mantaci-Reutenauer algebras. (Received September 19, 2005)