

Algèbres non commutatives, théorie des représentations et fonctions
spéciales
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Non-commutative algebras, representation theory and special functions
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**On the representation theory of a symmetry algebra associated to
a generalised Dirac operator**

We study the representations of an associative algebra generated by a class of elements supercommuting with a realisation of the Lie superalgebra $\mathfrak{osp}(1|2)$ inside the tensor product of a Clifford algebra and a rational Cherednik algebra. The polynomial null solutions of the Dunkl–Dirac operator are an example of representation for this algebra when considering the Dunkl representation of the rational Cherednik algebra. In this talk, we will present some of the techniques involved in constructing all finite-dimensional irreducible representations for specific groups.