THE FIELDS INSTITUTE

ABSTRACTS 1.2

FOR RESEARCH IN MATHEMATICAL SCIENCES

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Tilting modules for algebraic and quantum groups

Let G be a semisimple algebraic group over a field of characteristic p > 0. Suppose R is the root system for G with respect to some maximal torus, and denote by U_q the corresponding quantum group (obtained via the divided power construction) at a p'th root of unity $q \in \mathbf{C}$. We shall discuss some recent progress in understanding the tilting modules for G and for U_q with emphasis on the interrelations between the two cases.