

**Symplectic Dirac Operators**  
**for**  
**Lie Algebras and graded Hecke algebras**

**Marcelo Gonçalves De Martino**

**(UGent)**

We define a pair of symplectic Dirac operators in an algebraic setting motivated by the analogy with the algebraic theory of orthogonal Dirac operators. We compute and study the commutator of these two elements in the context quadratic Lie algebras and graded affine Hecke algebras. This commutator can be seen as an analogue of Parthasarathy's formula for the square of orthogonal Dirac operators. This is a joint work with D. Ciubotaru and P. Meyer.