

PIERI RULES FOR THE MACDONALD POLYNOMIALS IN SUPERSPACE AND THE 6-VERTEX  
MODEL

**Luc Lapointe**

Universidad de Talca, Chile  
lapointe@inst-mat.otalca.cl

The Macdonald polynomials in superspace are symmetric polynomials involving commuting and anticommuting variables that generalize the Macdonald polynomials. We will describe how the combinatorics of the Macdonald polynomials extends to superspace. We will focus in particular on how the partition function of the 6 vertex model arises in the Pieri rules for the Macdonald polynomials in superspace.

*Joint work with Jessica Gatica (PUC, Chile), Camilo Gonzalez (Universidad de Talca, Chile) and Miles Jones (University of California, San Diego, USA).*