
Kraskiewicz-Pragacz modules and Pieri and dual Pieri rules for Schubert polynomials

Masaki Watanabe*¹

¹Department of Applied Mathematics and Physics [Kyoto] – Graduate School of Informatics Kyoto University 606-8501, Kyoto Japan, Japan

Abstract

In their 1987 paper Kraskiewicz and Pragacz defined certain modules, which we call KP modules, over the upper triangular Lie algebra whose characters are Schubert polynomials. In a previous work the author showed that the tensor product of Kraskiewicz-Pragacz modules always has KP filtration, i.e. a filtration whose each successive quotients are isomorphic to KP modules. In this paper we explicitly construct such filtrations for certain special cases of these tensor product modules, namely $Sw Sd(Ki)$ and $Sw Vd(Ki)$, corresponding to Pieri and dual Pieri rules for Schubert polynomials.

*Speaker