THE UNIVERSITY ⬡ OF HONG KONG

Institute of Mathematical Research
Department of Mathematics

Geometry Seminar

Quantization of Poisson homogeneous spaces, highest weight modules, and Kostant's problem

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Abstract

We consider the relationship between irreducible highest weight modules of a semisimple complex Lie algebra, fusion elements, and equivariant quantization. Specifically, we use the Shapovalov form to construct generalized fusion elements, which in turn are used to define equivariant star products on (co)adjoint orbits. We also discuss some limiting properties of fusion elements and apply these to the classical Kostant's problem in representation theory.

These results also have analogues in the quantum group setting.

The talk is based on the joint work with A. Stolin and V. Tarasov.

Date:	January 25, 2010 (Monday)
Time:	4:00 – 5:00pm
Place:	Room 210, Run Run Shaw Bldg., HKU

All are welcome