

THE UNIVERSITY



OF HONG KONG

Department of Mathematics

Seminar Presentation

A PARAMETRIZATION OF SYMPLECTIC LEAVES IN DOUBLE BRUHAT CELLS

Mr. Ruize LAI

Student, Department of Mathematics, HKU

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Abstract

Let G be a connected, simply connected complex semisimple Lie group, equipped with the standard holomorphic Poisson structure. For an element u in the Weyl group W of G , let Σ^u be the symplectic leaf of G through a representative of u in G . We study parametrizations of Σ^u by products of two-dimensional symplectic leaves of G . We show that for an arbitrary u , one can associate to each reduced word of u a regular map from the $l(u)$ -fold product of two dimensional symplectic surfaces to Σ^u , which is finite to one onto a Zariski open subset of Σ^u . The image of this map can be characterized in terms of generalized minors. In particular, when u is a Coxeter element, the product map is biregular. This is joint work with Jiang-Hua Lu.

All are welcome