

THE UNIVERSITY



OF HONG KONG

*Institute of Mathematical Research
Department of Mathematics*

GEOMETRY SEMINAR

Intersections between Bruhat cells and conjugacy classes in classical groups

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Abstract

A complex connected semisimple Lie group G carries a holomorphic Poisson structure π_0 whose H -orbits of symplectic leaves are the non-empty intersections $C \cap BwB^-$, where C is a conjugacy class in G and BwB^- is a Bruhat cell in G . This motivates the study of such intersections $C \cap BwB^-$.

In this talk, I will consider G to be a matrix group and first discuss the classification of conjugacy classes in G . For each conjugacy class C in G , I shall describe when C intersects with a Bruhat cell BwB^- in terms of the Bruhat order on the Weyl group and some elements in the Weyl group.

Date: November 10, 2009 (Tuesday)

Time: 3:00 - 4:00pm

Place: Room 210, Run Run Shaw Bldg., HKU

All are welcome