



Department of Mathematics
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Representation and Number Theory Seminar

(Affine Bruhat order and generic Newton points)

by

(Dr. Felix Schremmer)
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Abstract:

The affine flag variety of an algebraic group allows a decomposition into Iwahori double cosets, indexed by the affine Weyl group. This is the first step towards answering geometric questions via combinatorial methods. The closure relations between these double cosets are described by the Bruhat order on the affine Weyl group, a classical order that has been fully understood only in special cases. Related to this is the question of generic Newton points, which asks for the Newton point of the generic point of such an Iwahori double coset. Both questions have partial answers in terms of the quantum Bruhat graph, given by Lam and Shimozono resp. Milićević. We extend these results and give a full answer to both problems in terms of this graph. As an application, we describe the cordial elements of certain groups.

Date : November 30, (Tuesday)
Time : 4:00pm – 5:00pm (Hong Kong SAR)
Zoom link :
<https://cuhk.zoom.us/j/97838822137?pwd=ZTVvSC9abmNjR3RCcS9FTzJNTVhXdz09>
Meeting ID: 978 3882 2137
Passcode : sesame

All are Welcome