THE UNIVERSITY **OF HONG KONG**

Department of Mathematics

Qualifying Research Seminar

Cluster structures via Poisson CGLs

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Rm 210, Run Run Shaw Building, HKU

Abstract

In the first part of my talk, we explore the role of Poisson geometry and torus actions in constructing cluster structures on affine varieties, especially on toric orbits of symplectic leaves, also called T-leaves. In the second part of the talk, Goodearl-Yakimov theory on symmetric Poisson Cauchon-Goodearl-Letzter (CGL) extensions will be reviewed along with the example of generalized Schubert cells. At the end, we outline future research plans on Poisson CGL extensions associated to generalized Schubert cells of symmetrizable Kac-Moody type.

All are welcome