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## **Representation and Number Theory Seminar**

## Dowling-Wilson Conjecture and Equivariant Compactification of the Vector Group

by

## **Professor Botong Wang** University of Wisconsin-Madison

Abstract: In the first part of the talk, I will give a survey of the proof of the Dowling-Wilson conjecture using the Schubert variety of a hyperplane arrangement. The Schubert variety of a hyperplane arrangement is an equivariant compactification of the vector group with finitely many orbits. In the second part of the talk, we will discuss a recent work of Colin Crowley characterizing Schubert variety of hyperplane arrangements among all equivariant compactification of vector groups, and some on-going work on polymatroid Schubert varieties joint with Colin Crowley and Connor Simpson.

Date : 11 October, 2022 (Tuesday) Time : 11:00am – 12:00noon (Hong Kong SAR) Zoom link : https://cuhk.zoom.us/j/97838822137?pwd=ZTVvSC9abmNjR3RCcS9FTzJNTVhXdz09 Meeting ID: 978 3882 2137 Passcode : sesame

All are Welcome