



Research Seminar

Program

18 April 2024

15:00pm-15:15pm	Briefing: Associate Professor Yi Guo Open the seminar
15:15pm-15:50pm	NCDMSers Presentation Topic: Complex Spaces, Reflections and the Cyclotomic Hecke Algebras Speaker: Dr Mengfan Lyu, School of Computer, Data and Mathematical Sciences, Western Sydney University
15:50 pm-16:10 pm	Q &A
16:10 pm-16:30pm	Closing Remarks and Network

Venue: PS-EA.2.29

Meeting ID: 847 6950 5596

Password: 2024

Join Zoom Meeting

<https://uws.zoom.us/j/84769505596?pwd=UGt5eTk5cVpHdlhSaEU1d3lQUWlodz09>

Complex Spaces, Reflections and the Cyclotomic Hecke Algebras

Speaker: Dr Mengfan Lyu

Abstract:

In this talk I will start with the definition of complex numbers and then delve into the fascinating realms of complex spaces and complex reflection groups. Complex spaces provide a rich playground for investigating symmetries and structures that arise from complex reflections. I will explore the fundamental concepts of complex reflection groups, examining their geometric and algebraic properties. Moreover, I will also introduce the cyclotomic Hecke algebras, which emerge as powerful tools for understanding the symmetries inherent in complex reflection groups. These algebras encode combinatorial and algebraic information about the reflection groups, offering deep insights into their representation theory and geometric properties.