



*Institute of Mathematical Research
Department of Mathematics*

Number Theory Seminar

The algebraic parts of the central values of quadratic twists of modular L -functions modulo a prime ideal

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Abstract

As in the Birch and Swinnerton-Dyer conjecture and the Bloch and Kato conjecture, the central values of modular L -functions play an important role in number theory. By using Shimura's result on the existence of a period of special modular L -values, we can consider the algebraic part of the central values of modular L -function. Waldspurger, Kohnen and Zagier, Kohnen, Mao, and others have established the relations between the Fourier coefficients of a modular form of half-integral weight $k + 1/2$ and the central values of the twisted L -functions of a newform with weight $2k$. In this talk, I will talk about the study of non-vanishing of algebraic part of central values of modular L -functions modulo a prime ideal by refining Waldspurger's formula on the Shimura correspondence and by considering mod l modular forms of half-integral weight with few non-vanishing coefficients.

Date:	March 28, 2021 (Monday)
Time:	2:00 - 3:00pm (Hong Kong Time)
Venue:	ZOOM: https://hku.zoom.us/j/ Meeting ID: 232 576 6007

All are welcome