Representation and Number Theory Seminar

Kudla-Rapoport Conjecture for Kramer Model

by

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Abstract:

Kudla-Rapoport conjecture is a precise identity between intersection number of special divisors on Rapoport-Zink space and derived local density, which is a key ingredient for arithmetic Siegel-Weil formula. The original Kudla-Rapoport conjecture is only formulated over unramified primes (the *RZ* space in this case has good reduction). In this talk, I will explain how to formulate a conjecture for Kramer models over ramified primes, and the strategy to prove it. On the geometric side, we can completely avoid the Tate conjecture for Deligne-Lusztig varieties. On the analytic side, we obtain a surprisingly simple formula for derived primitive local density. An induction and partial Fourier transform prove the conjecture. This is a joint work with Chao Li, Yousheng Shi and Tonghai Yang.

Date	:	13 December 2022 (Tuesday)
Time	:	9:00am – 10:00am (Hong Kong SAR)
Zoom link	:	
		https://cuhk.zoom.us/j/97838822137?pwd=ZTVvSC9abmNjR3RCcS9FTzJNTVhXdz09
Meeting ID	:	978 3882 2137
Passcode	:	sesame

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