ON ARITHMETIC FUNDAMENTAL LEMMAS AND ARITHMETIC TRANSFERS

Speaker: Zhiyu Zhang
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Time：**Mon, Jun. 26, 14:00-17:00**

Venue: Room 102, SCMS

Abstract: The Gross-Zagier -Zhang formula relates heights of Heegner points on Shimura curves to central derivatives of L functions of modular forms, which is a key to the BSD conjecture of elliptic curves. The AGGP conjecture is a higher dimensional generalization of the formula and has applications to the Bloch-Kato conjecture. In this talk, I will discuss recent developments on arithmetic fundamental lemmas (AFL) by Mihatsch-W. Zhang and arithmetic transfers (AT) by myself, which lead to a proof of the p-adic AGGP conjecture with mild ramifications by Disegni-W. Zhang.