

# 國立清華大學數學系學術演講

## NTHU MATH Colloquium

講題 On the Equivariant Tamagawa Number Conjecture

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時間 2024.04.08 (Mon.) 16:00 – 17:00

地點 第三綜合大樓**2樓 Room 201**

茶會 15:30, Room 707

### Abstract

In the seminal paper by Bloch and Kato, they formulated the Tamagawa Number Conjecture, which elegantly generalized several results and conjectures concerning the leading term of the L-function associated with a motive in the literature. This encompassed well-known formulas like the analytic class number formula and the Birch and Swinnerton-Dyer conjecture. Subsequently, Kato introduced an equivariant refinement of the Tamagawa Number Conjecture with commutative coefficients, which was further extended by Burns and Flach to incorporate general coefficients.

In this presentation, I will provide an overview of the conjecture and outline the known cases. Additionally, I will delve into how we can derive concrete consequences in number theory from such a broad conjecture. If time permits, I will also explore the connection between Burns-Flach's work and the general Iwasawa main conjecture proposed by Fukaya and Kato.