



UCD School of Mathematics and Statistics Colloquium Seminar

Title: Birch and Swinnerton-Dyer Conjecture via Iwasawa Theory

Speaker: Professor ANTONIO LEI (University of Ottawa)

Date: Tue 4th October 2022 at 4:00PM

Location: Seminar Room SCN 1.25

Abstract: The Birch and Swinnerton-Dyer Conjecture predicts that the set of rational points on an elliptic curve can be described by an explicit analytic function attached to the curve. This conjecture has only been solved in certain special cases and is still one of the central problems studied by number theorists many decades after it has been first formulated. In this talk, we will - Give an overview of the Birch and Swinnerton-Dyer Conjecture. - Wander into the world of Iwasawa Theory, which is a branch of Number Theory where we study arithmetic objects by deformation. - Discuss how Iwasawa Theory can be used in the study of the Birch and Swinnerton-Dyer Conjecture.