MOHAMMADREZA MOHAJER, University of Ottawa

Linear relations of p-adic periods of 1-motives

1-periods are complex numbers arising from degree 1 Betti-de Rham comparison isomorphism or from Deligne 1-motives. Due to Wüstholz, Huber and other research works, Kontsevich-Zagier period conjecture is known for these periods. In our research, we are aiming to draw p-adic analogies with the well-established results that are known for these periods. Specifically, in this talk, we will explore the p-adic periods of curve type. Our main goal is to study the transcendence and linear relations of these p-adic numbers. We will begin by introducing the formalism of p-adic periods where it provides us a tool to state the p-adic period conjecture and the p-adic version of subgroup theorem. We will then move on to the p-adic periods of 1-motives with good reduction which arise from crystalline-de Rham realisations and we will compare them with those p-adic periods coming from p-adic integration theory.