

ASYMPTOTIC DISTRIBUTION OF HECKE POINTS OVER \mathbb{C}_p .

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ABSTRACT. In this talk I will present some results about the asymptotic distribution of Hecke points on the moduli space of elliptic curves over \mathbb{C}_p . These points correspond to elliptic curves which admit an isogeny of a given degree to a fixed elliptic curve. For this we use Tate's uniformization theory of elliptic curves with bad reduction and the existence of canonical subgroups for ordinary and not too supersingular elliptic curves, among other results. Our techniques also apply to the study of the asymptotic distribution of CM points over \mathbb{C}_p .

This is joint work with Ricardo Menares (P. Universidad Católica de Valparaíso) and Juan Rivera-Letelier (University of Rochester).

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