

Séminaire de théorie des nombres

Le 25 février 2019 à 14h (Jussieu)

Extensions of the truncated Nevanlinna-Cartan's theorem in the context of function fields

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Résumé : In 1996, Noguchi and Wang independently proved analogues of Nevanlinna-Cartan's Second Main Theorem with truncated counting functions for function fields. As in Cartan's theorem, the level of truncation was equal to the dimension of the ambient projective space. Using the theory of omega-integral curves studied by Vojta, we prove extensions of Noguchi-Wang's theorem with other truncations. In particular, we obtain a bound of the height of a non-constant morphism from a curve to the projective plane in terms of the number of intersections (without multiplicities) of its image with a divisor of a particular kind. This proves some new special cases of Vojta's conjecture with truncated counting functions in the context of function fields.