

# On the rationality of the logarithmic growth filtration of solutions of $p$ -adic differential equations

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In his study of  $p$ -adic differential equations, B. Dwork proved that the power series solutions of certain  $p$ -adic differential equations such as ( $p$ -adic) Gaussian hypergeometric one satisfy a mild growth condition. Recently, B. Chiarellotto and N. Tsuzuki reconsidered Dwork's work and conjectured a relationship between the order of growth and Frobenius slopes of the space of solutions. In this talk, we discuss some part of Chiarellotto-Tsuzuki conjecture.