SUR L'IRRÉDUCTIBILITÉ DANS L'ANNEAU DES SÉRIES DE DIRICHLET ANALYTIQUES

Frédéric Bayart et Augustin Mouze

Abstract

We discuss some local analytic properties of the ring of Dirichlet series. We obtain mainly the equivalence between the irreducibility in the analytic ring and in the formal one. In the same way we prove that the ring of analytic Dirichlet series is integrally closed in the ring of formal Dirichlet series. Finally we introduce the notion of standard basis in these rings and we give a finitely generated ideal which does not admit standard bases.

 $2000\ Mathematics\ Subject\ Classification.\ 13F15,\ 30B50,\ 32B05.$ Key words. Dirichlet series, local analytic geometry, arithmetic rings.