

UNIFORMIZATION OF TRIANGLE MODULAR CURVES

P. BAYER AND A. TRAVESA

Abstract

In the present article, we determine explicit uniformizations of modular curves attached to triangle Fuchsian groups with cusps. Their *Hauptmoduln* are obtained by integration of non-linear differential equations of the third order. Series expansions involving integral coefficients are calculated around the cusps as well as around the elliptic points. The method is an updated form of a differential construction of the elliptic modular function j , first performed by Dedekind in 1877. Subtle differences between automorphic functions with respect to conjugate Fuchsian groups become apparent.

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