

Chapter

Elliptic Functions

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The zeta-function and the sigma-function of Weierstrass

- Komaravolu Chandrasekharan

Abstract

Weierstrass's ζ -function is a meromorphic function, which has *simple* poles, with residues equal to one, at all points which correspond to the periods of Weierstrass's \wp -function. It is *not* elliptic. But every elliptic function can be expressed in terms of ζ and its derivatives; in fact $\zeta'(z) = -\wp(z)$.

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