Minisymposium 21 - Automorphic forms and their applications

Zeroes of the Weierstrass $\wp$-function and hypergeometric series

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Surprisingly the location of the zeroes of the Weierstrass $\wp$-function was not known until 1982, when Eichler and Zagier found for them a beautiful integral formula. In a joint paper with W. Duke we were able to "deuniformize" the Eichler Zagier formula and write the zeroes in terms of generalized hypergeometric series. Our formulas can be thought as the analog of classical formulas for the periods in terms of the Gauss hypergeometric series.