

# Modular forms, hypergeometric transformation formulas and Ramanujan's series for $1/\pi$

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The theory of modular forms will be used to derive hypergeometric transformation formulas and prove a large number of identities; for example, one of the results states that forty-two functions are all equal. We recover several identities of Goursat along with many identities that are new. Applications to Ramanujan's series for  $1/\pi$  will be presented. This is joint work with Wadim Zudilin.