

1078-11-197

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It is now known that each of Ramanujan's mock theta functions is the holomorphic part of a weight $1/2$ harmonic weak Maass form. Following Zagier, the holomorphic part of any weight $1/2$ harmonic weak Maass form is called a mock theta function. In this talk, we discuss an explicit construction of new multisum families of q -hypergeometric series which are mock theta functions (in the modern sense). We also present identities between these new families and classical mock theta functions. This is joint work with Jeremy Lovejoy (Paris 7). (Received December 07, 2011)