962-11-143 **Stephen C Milne\*** (`milne@math.ohio-state.edu`), Department of Mathematics, The Ohio State University, 231 West 18-th Avenue, Columbus, OH 43210-1174. *A new formula for Ramanujan's tau function.*

We sketch our derivation of a useful new formula for Ramanujan's tau function. We then indicate some of its consequences in number theory, unimodular lattices, $q$-series, and combinatorics. (Received August 08, 2000)