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Qi Chen* (chenqi@wssu.edu), Department of Mathematics, Winston-Salem State University,
Winston Salem, NC 27110. *The Integrality of the Quantum $SU(2)$ Invariant of 3-manifolds.*

We will show that the quantum $SU(2)$ invariant τ_r of 3-manifolds is always an algebraic integer if r is coprime to the order of the first homology group of the 3-manifold. The proof is based on a relationship between τ_r and the Hennings invariant. (Received February 02, 2010)