

1106-VQ-339 **Hieu D Nguyen*** (nguyen@rowan.edu), Department of Mathematics, Rowan University, 201
Mullica Hill Rd., Glassboro, NJ 08028. *A New Proof of the Prouhet-Tarry-Escott Problem.*

The famous Prouhet-Tarry-Escott problem seeks collections of mutually disjoint sets of non-negative integers having equal sums of like powers. In this talk we present a new proof of the solution to this problem by deriving a generalization of the product generating function formula for the classical Prouhet-Thue-Morse sequence. (Received August 23, 2014)