

**Meeting:** 999, Nashville, Tennessee, SS 13A, Special Session on Semigroup Theory

999-16-107      **Edmond W. H. Lee\*** (ewl@sfu.ca), Department of Mathematics, Simon Fraser University, 8888 University Drive, Burnaby, BC V5A 1S6, Canada. *The variety generated by the five-element Brandt Semigroup.*

The five-element Brandt semigroup  $B_2$  plays a very prominent role in the theory of semigroup varieties. It is related to examples having many properties important to the study of semigroup varieties. Recently, all subvarieties of the variety  $\mathbf{B}_2$  generated by  $B_2$  have been completely described. It has also been shown that all subvarieties of  $\mathbf{B}_2$  are finitely based; this answers a well-known open problem. In this session, we present some interesting properties of the subvariety lattice of  $\mathbf{B}_2$ . (Received August 16, 2004)