

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

999-20-80 **Peter R. Jones*** (jones@mscs.mu.edu), Department of Mathematics, Statistics, and Computer Science, Marquette University, P. O. Box 1881, Milwaukee, WI 53201-1881, and **Attila Nagy** (nagyat@math.bme.hu). *Permutative semigroups whose congruences form a chain.*

Semigroups whose congruences form a chain are often termed Δ -semigroups. The commutative Δ -semigroups were determined by Schein and by Tamura. A natural generalization of commutativity is permutativity: a semigroup is permutative if it satisfies a nontrivial permutational identity. We completely determine the permutative Δ -semigroups. It turns out that there are only six noncommutative examples, each of which has at most three elements. (Received August 10, 2004)