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

999-20-128 **Pierre A. Grillet*** (grillet@math.tulane.edu), Department of Mathematics, Tulane University, New Orleans, LA 70118-5698. *Commutative coextensions.*

Cancellative coextensions are defined like group coextensions, using cancellative commutative semigroups instead of groups. It is well known that every finite commutative semigroup S is a group coextension of a finite groupfree semigroup T by an abelian group valued functor A on T; namely, $T = S/\mathcal{H}$ and the groups in A are the Schützenberger groups of the $\mathcal{H}$-classes. With cancellative coextensions, this result can be extended to any finitely generated commutative semigroup S: there is a congruence $\mathcal{K}$ on S such that $T = S/\mathcal{K}$ is finite groupfree and S is a cancellative coextension of T by a cancellative semigroup valued functor on T, whose cancellative semigroups are the Schützenberger monoids of the $\mathcal{K}$-classes. (Received August 18, 2004)