

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

999-20-133 **Victoria Gould** and **Mark Kambites***, School of Mathematics & Statistics, Carleton University, Herzberg Laboratories, 1125 Colonel By Drive, Ottawa, Ontario K1S 5B6, Canada.
Faithful Functors and Ample Semigroups.

We report on some recent results concerning faithful functors from small categories to monoids. These include the fact that a small category is cancellative if and only if it admits a faithful functor to a cancellative monoid, and locally unipotent if and only if it admits a faithful functor to a unipotent monoid. We also obtain some related embedding and decidability results for ample semigroups. (Received August 19, 2004)