1004-54-32 **David Bradshaw**, **Mehrdad Khosravi**, **Heath M Martin** and **Piotr Mikusinski***
(`piotrm@mail.ucf.edu`), Department of Mathematics, University of Central Florida, PO Box
161364, Orlando, FL 32816-1364. *Topological properties of generalized quotients.* Preliminary
report.

Starting from a nonempty set X, a commutative semigroup G acting on X, and a (nonempty) index set I, we construct a new space $\mathcal{B}$ whose algebraic character is similar to a quotient field. If X is a topological space and elements of G are continuous maps, then $\mathcal{B}$ can be equipped with a natural topology. We are interested in properties of that topology. (Received January 03, 2005)