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**Veny Liu\*** (venyliu@hawaii.edu) and **Jon M Corson**. *Inverse Semigroupoids and Their Free Objects*.

Inverse semigroupoids are generalizations of inverse semigroups and groupoids. To investigate inverse semigroupoids, we define a special type congruence and homomorphism. Furthermore, free objects in the category of inverse semigroupoids are interesting themselves and they form the foundation for studying inverse semigroupoids combinatorially. A free inverse semigroupoid has a (symmetric) basis, and it turns out to be unique. (Received September 14, 2016)