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Leah Marshall* (lbm@gwmail.gwu.edu), Department of Mathematics, George Washington University, Washington, DC 20052. *Nested Equivalence Structures and Trees of Finite Height*. Preliminary report.

A nested equivalence structure consists of a set of natural numbers and a finite number of equivalence relations, which are nested inside of each other. We explore ways of representing nested equivalence structures as trees and utilize the tools of category theory to build computable functors between nested equivalence structures and full trees of finite height. This gives us the framework in which we can transfer existing results about computable isomorphisms between finite height trees to similar notions of nested equivalence structures. (Received January 19, 2015)