1053-03-41 **Michael A Warren*** (mwarren@uottawa.ca), Department of Mathematics and Statistics, 585 King Edward Ave., Ottawa, Ontario K1N 6N5, Canada. *Martin-Löf Complexes.*

Recent research has revealed an interesting connection between the intensional form of Martin-Löf type theory and structures arising in homotopy theory and higher-dimensional category theory. In this talk we will describe one application of this connection to homotopy theory by using a class of combinatorial structures called *Martin-Löf complexes*, that are obtained by freely adjoining cells to (higher-dimensional) graphs in accordance with the rules of type theory, to model certain homotopy types.

This is joint work with S. Awodey and P. Hofstra. (Received July 12, 2009)