1054-18-276 **Christopher Walker*** (cwalker66@math.ucr.edu). *A Categorification of Hall Algebras.*

In 1990 Ringel first proved that given any simply-laced Dynkin diagram, the Hall algebra of this diagram is isomorphic to the positive part of Uq(g), where g is the lie algebra associated to the same Dynkin diagram. Hall algebras turn out to be one of the most natural applications of the Baez/Dolan program of "groupoidification". In this talk we will describe the pieces of groupoidification necessary for this example, and then show how to apply the process to Hall algebras. (Received September 15, 2009)