1033-55-46 **Julie Bergner*** (jbergner@math.ksu.edu). *Homotopy fiber products of homotopy theories.*

The notion of a homotopy fiber product of model categories has proved to be a useful one, notably in Toen's development of derived Hall algebras associated to certain stable model categories. Using a functor assigning to any model category a complete Segal space, we can reformulate the construction of such homotopy fiber products in a setting where homotopy limits are well-defined. We can then show that their name is justified, in that their images under this functor agree with the appropriate homotopy pullbacks. Thus, it should be possible to generalize results such as Toen's by working with homotopy pullbacks of complete Segal spaces in place of homotopy fiber products of model categories. (Received August 23, 2007)