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**J. Scott Carter\***, Dept. of Math. and Stat., ILB 325, University of South Alabama, Mobile, AL 36688. *Braided manifolds of dimension 3 and 4.*

This is joint work with Seiichi Kamada. The idea of a surface braid was introduced by Kamada, Viro, and Rudolph as a method of studying knotted surfaces in 4-dimensional space. Kamada's braid charts are a method of encoding these surface braids. They consist of a labeled oriented graph with specific types of vertices that represent relations in the braid group or branch points of the surface. A sequence of charts can be used to define embeddings and immersions of 3-manifolds in 5-space which have the property that canonical projections induce branched coverings. Similarly, for small covering indices, we can generalize this construct embeddings and immersions of branched coverings of the 4-space branched over orientable surfaces.

The talk will illustrate the ideas via as many examples as possible. (Received January 28, 2014)