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Marta Asaeda* (marta@math.ucr.edu), UC Riverside, Mathematics, 900 Big Springs Dr,
Riverside, CA 92521. *Tensor functors on a certain category constructed from spherical categories.*

We construct functors from a certain algebraic category Alg , defined by Hopf algebra generators and relations, to the category of vector spaces, based on spherical categories. The category Alg is proposed by Habiro to be isomorphic to the cobordism category of once-punctured surfaces. If the proposal is proved valid, the result of this paper would imply a construction of a TQFT functor based on a spherical category. (Received February 16, 2010)