

Meeting: 1002, Pittsburgh, Pennsylvania, SS 1A, Special Session on Invariants of Knots and 3-Manifolds

1002-57-243 **J. Scott Carter*** (carter@jaguar1.usouthal.edu), Department of Mathematics and Statistics, University of South Alabama, ILB 325, Mobile, AL 36688. *The Khovanov-Jacobsson number of a large class of knotted surfaces is trivial.*

A crossing change along a double curve of a knotted sphere is realized by a ribbon move to a knotted torus that is obtained from the sphere by attaching a trivial 1-handle. This implies that any knotted sphere that can be unknotted by means of a crossing change has trivial Khovanov-Jacobsson number. Such knotted spheres include ribbon spheres and knotted spheres that are obtained from classical knots by the twist spinning construction. In particular, if a knotted sphere with a trivial handle attached has non-trivial Khovanov-Jacobsson number (a value other than 2), then the knotted sphere cannot be unknotted by a crossing change.

This talk is based on joint work with Masahico Saito and Shin Satoh (Received September 15, 2004)