## 1107-57-372 Carmen Caprau\*, 5245 N. Backer Avenue M/S PB108, Fresno, CA 93740, and Heather

**Russell**. Moves for isotopic singular link cobordisms in 4-dimensional space. Preliminary report.

A singular link is an immersion of a disjoint union of circles in 3-space, which has finitely many singularities that are all transverse double points. A singular link can be regarded as an embedding in 3-space of a 4-valent graph with rigid disks.

Two singular links are cobordant if one can be obtained from the other by singular link isotopy together with a combination of births or deaths of simple unknotted curves, and saddle point transformations. A movie description of a singular link cobordism in 4-space is a sequence of singular link diagrams obtained from a projection of the cobordism to 3-space by taking 2-dimensional cross sections perpendicular to a fixed direction. This talk will be centered on the set of movie moves that are sufficient to connect any two movies of isotopic singular link cobordisms. (Received January 19, 2015)