1113-05-275Ivan Izmestiev and Steven Klee*, Seattle University Department of Mathematics, 901 12th
Avenue, Seattle, WA 98122, and Isabella Novik. Simplicial moves on balanced manifolds.

A famous result in combinatorial topology states that two triangulated manifolds are homeomorphic if and only if they can be connected through a sequence of local operations called bistellar flips.

A *d*-dimensional simplicial complex is called balanced if its vertices can be colored with a set of d + 1 colors so that no two adjacent vertices receive the same color. While bistellar flips preserve the homeomorphism type of a simplicial complex, they do not necessarily preserve balancedness.

In this talk, we will introduce a new family of local operations, called cross-flips, that preserve both balancedness and the homeomorphism type of a simplicial complex. (Received August 24, 2015)