1067-Z1-900 **Erin Elizabeth Bancroft*** (erin_bancroft@ncsu.edu), 2108 SAS Hall, Box 8205, Raleigh, NC 27695. *The Shard Intersection Order on the Symmetric Group.*

The shard intersection order is a new lattice structure on a finite Coxeter group W which encodes the geometry of the reflection arrangement and the lattice theory of the weak order. In the case where W is the symmetric group, we define a bijection between shard intersections and certain pre-orders which we call permutation pre-orders. We use this combinatorial characterization to determine properties of the shard intersection order. In particular, we give an EL-labeling. (Received September 16, 2010)