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Stephen Humphries* (steve@mathematics.byu.edu), Department of Mathematics, Brigham Young University, Provo, UT 84602. *Commutative Schur rings over symmetric groups.*

We characterize commutative Schur rings over the symmetric group S_n that contain the sum of the transpositions in S_n , by determining the possibilities for the partition of the class of transpositions that such a Schur ring gives. We note a connection with Gallai colorings of complete graphs. (Received January 13, 2016)