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Erica Flapan, Blake Mellor* (bmellor@lmu.edu) and **Ramin Naimi**. *Topological Symmetry Groups of Complete Graphs*.

The *topological symmetry group* of an embedded graph Γ in S^3 is the subgroup of the automorphism group of Γ (as an abstract graph) which is induced by homeomorphisms of the pair (S^3, Γ) . The topological symmetry group was introduced by Jon Simon in 1986 to study the symmetries of flexible molecular graphs. We address the question of classifying, for a particular graph, the possible topological symmetry groups of its embeddings. We answer this question completely for complete graphs, and discuss ongoing work on complete bipartite graphs. (Received July 25, 2011)