

Toric topology is the study of topological spaces with “well-behaved” torus symmetry. It is deeply related with combinatorial objects such as polytopes and graphs. In this talk, we briefly review the real toric manifold defined for a given simple graph, and see how to compute its cohomology ring using the structure of the graph. In particular, its Betti numbers are calculated using the graph invariant called a-number. I will try to keep the talk easy and understandable avoiding heavy use of topological methods.