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Claudiu Raicu* (craicu@math.princeton.edu), Department of Mathematics, Fine Hall,
Washington Road, Princeton, NJ 08544-1000. *Syzygies of Segre-Veronese varieties and the
homology of clique complexes.*

I will explain how the syzygies of projective embeddings of products of projective spaces (also known as Segre-Veronese varieties) can be determined by understanding the homology of the clique complexes associated to certain families of graphs. This leads in particular to a combinatorial derivation of the minimal free resolutions of the ideals of 2-minors of generic matrices and generic symmetric matrices, which have been previously computed using geometric methods by Lascoux, Pragacz and Weyman. (Received February 13, 2012)