Meeting: 1000, Albuquerque, New Mexico, SS 5A, Special Session on Categories and Operads in Topology, Geometry, Physics and Other Applications

1000-18-63 **James Conant*** (jconant@math.utk.edu), Dept of Mathematics, University of Tennessee, Knoxville, TN 37996-1300, and **Karen Vogtmann**. *A functor from cyclic operads to chain complexes.*

In two seminal papers M. Kontsevich introduced graph homology as a tool to compute the homology of three infinite dimensional Lie algebras, associated to the three operads 'commutative,' 'associative' and 'Lie.' We generalize his theorem to all cyclic operads, in the process giving a more careful treatment of the construction than in Kontsevich's original papers. If time permits, connections to the homology of moduli space and $Out(F_r)$ will be sketched. (Received August 10, 2004)