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Noam Horwitz* (nhorwitz@math.cornell.edu), Cornell University, Department of Mathematics, Ithaca, NY 14853. *Linear resolutions of edge ideals.*

Edge ideals are quadratic monomial ideals defined by graphs. We study the minimal free resolution of such ideals in the case where the resolution is linear. In particular, we provide an explicit minimal free resolution under the assumption that the graph associated with the edge ideal satisfies specific combinatorial conditions. We also construct a regular cellular structure on the resolution. (Received February 26, 2007)