998-05-324 **Daniela Ferrero*** (`dferrero@txstate.edu`), Department of Mathematics, Texas State University, San Marcos, TX 78666, and **Robert Ellis**. *The spectra of super line multigraphs of regular graphs.*

For a given graph simple G and a positive integer k, the super line multigraph of index k of G, denoted $L_k(G)$, has for vertices all the k-subsets of edges. Two vertices S and T are joined by as many edges as pairs of edges $s \in S$ and $t \in T$ share a common vertex. We give a formula to find the adjacency matrix of $L_k(G)$. If G is a regular graph, we calculate all the eigenvalues of $L_k(G)$ and their multiplicities. We apply the results to the study of independence in super line graphs. (Received March 01, 2004)