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**Nafiseh Jahanbakht\*** (nafiseh1383@gmail.com) and **Kouros Tavakoli** (ktavakoli@gc.cuny.edu). *Relation between the energy of a digraph and the energy of its underlying graph.* Preliminary report.

The energy of a graph is the sum of the absolute values of the eigenvalues of its adjacency matrix. For the case of digraphs the adjacency matrix is not symmetric and the eigenvalues might be complex numbers. Therefore, the energy of a digraph is defined to be the sum of the absolute values of the real parts of the eigenvalues of its adjacency matrix. In this talk, we study the relation between the energy of a digraph and the energy of its underlying graph. Under some conditions, the energy of a simple digraph  $G$  is one half of the energy of its underlying graph. The question is still open in the general case. (Received September 22, 2011)