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Vallieres**, CA. *L-functions for graph coverings and annihilation of graph Jacobians*. Preliminary  
report.

We consider an unramified Galois covering of a graph  $X$  by a graph  $Y$ , and denote the group of automorphisms of  $Y$  over  $X$  by  $G$ . For the graph  $Y$ , the Jacobian  $J(Y)$  is a group with a variety of other names whose order is the tree-number  $\kappa(Y)$  of  $Y$ . In our situation,  $J(Y)$  becomes a module over the group ring  $\mathbb{Z}[G]$ . Using  $L$ -functions, we define an element in this group ring and show that it annihilates the group  $J(Y)$ . This is an analog of the classical Stickelberger theorem for cyclotomic fields. (Received January 11, 2019)