Mohammad Adm* (mjamathe@yahoo.com), Department of Mathematics and Statistics, University of Konstanz, 78464 Konstanz, Germany, and Shaun Fallat (shaun.fallat@uregina.ca), Department of Mathematics and Statistics, University of Regina, Regina, SK S4S0A2, Canada. On the eigenvalues of acyclic matrices.

In this talk, we will present some recent work concerning the maximum nullity of acyclic matrices with a prescribed number of negative eigenvalues. Particular interest is paid to the case of one negative eigenvalue, where characterizations of the optimal matrices attaining the largest nullity will be shown. As a by-product cut-vertex type inequalities along with a new derivation of the maximum nullity for such matrices will also be demonstrated. (Received September 25, 2017)