

1086-05-1897 **Elizabeth Moseman*** (lizz.moseman@gmail.com). *Approximation of Multivariate Network Reliability.*

When a network is modelled by a graph and edges of the graph remain reliable with a given probability, the probability of the graph remaining connected is called the reliability of the network. This talk discusses one method of approximation in calculating the reliability of the network when the probability is allowed to vary by edge. This method is based on sequential importance sampling and exploits the similarities that arise since reliability is a special case of the Tutte polynomial. (Received September 24, 2012)