1035-05-1400 Yinghua Duan, Nankai University, P.R. China, Haidong Wu^{*}, University of Mississippi, University, MS 38677, and Qinglin Yu, Nankai Univ. and Thompson Rivers University. On Chromatic, Flow, and Tutte Polynomial Unique Graphs.

The chromatic polynomial and flow polynomial of a graph are two important evaluations of its Tutte polynomial. Much research has been done on graphs determined entirely by their chromatic polynomials and Tutte polynomials, respectively. Oxley asked which classes of graphs or matroids are determined by their chromatic and flow polynomials together. We show that several classes of graphs, ladders, Möbius ladders and squares of cycles are determined by their chromatic polynomial and flow polynomial together. A direct consequence of our theorem is a result of de Mier and Noy that these classes of graphs are T-unique. We also prove that twisted wheels are T-unique. (Received September 19, 2007)