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Yongwu Rong* (rong@gwu.edu), Department of Mathematics, The George Washington University, Washington, DC 20052, and **E Fanny Jasso-Hernandez**, Department of Mathematics, The George Washington University, Washington, DC 20052. *Categorifying the Tutte polynomial and more.*

Motivated by Khovanov's work on knot homologies, there have been a number of homology theories for graphs that categorify various graph polynomials. These include the chromatic homology (Helme-Guizon and Rong), the dichromatic homology (Stosic), and chromatic homologies for ribbon graphs (Loebl and Moffatt). In this talk, we will talk about a homology theory for the Tutte polynomial. We will also show that our method, which is different from the Khovanov-Rozansky construction, can be extended to categorify the Bollobas-Riordan polynomial.

The part of the work on Tutte homology is jointly with E. Fanny Jasso-Hernandez. (Received February 20, 2006)