

1077-05-2541 **Stan Dziobiak*** (smdziobi@olemiss.edu), Department of Mathematics, University of Mississippi, Hume Hall 305, University, MS 38677-1848, and **Guoli Ding** (ding@math.lsu.edu), Department of Mathematics, Louisiana State University, Locket Hall 303, Baton Rouge, LA 70803-4918. *On cubic non-toroidal graphs*. Preliminary report.

The classical result of Kuratowski and Wagner ('37) characterizes the class of planar graphs in terms of two excluded minors. Archdeacon ('81) characterized projective-planar graphs in terms of thirty-five excluded minors. The complete list of excluded minors for the torus is still unknown, but is known to number in the tens of thousands. An unpublished result of Robertson and Seymour ('96) states that dodecahedrally connected projective-planar graphs can be characterized by only three excluded minors. In this talk, we report the progress on the analogous result of characterizing dodecahedrally connected toroidal graphs that are non-projective-planar in terms of excluded minors. (Received September 22, 2011)