

1128-57-19

Heather M. Russell* (hrussell@richmond.edu) and **Oliver T. Dasbach.** *Equivalence of edge bicolored graphs on surfaces.* Preliminary report.

Consider the collection of edge bicolored graphs cellularly embedded on some orientable surface. In this talk, we seek to count the number of equivalence classes of such graphs under two relations: reversing colors around a face and reversing colors around a vertex. In the case of the plane, this is well studied, but for other surfaces, the computation is more subtle. While this question can be stated purely graph theoretically, it has interesting connections to knot theory. (Received January 13, 2017)