
JOSHUA NEVIN, University of Ottawa
Distant 2-Colored Components on Embeddings

In this talk, we present a new result which consists of the following generalization of Thomassen's 5-choosability theorem: Let G be a finite graph embedded on a surface of genus g . Then G can be L -colored, where L is a list-assignment for G in which every vertex has a 5-list except for a collection of pairwise far-apart components, each precolored with an ordinary 2-coloring, as long as the face-width of G is $2^{\Omega(g)}$ and the precolored components are of distance $2^{\Omega(g)}$ apart. This provides an affirmative answer to a generalized version of a conjecture of Thomassen and also generalizes a result from 2017 of Dvořák, Lidický, Mohar, and Postle about distant precolored vertices.