

Genus distributions of cubic series-parallel graphs

Date Tuesday, October 23

Time 3:00 pm

Location 303 Mudd

Abstract: We derive a quadratic-time algorithm for the genus distribution of any 3-regular, biconnected series-parallel graph, which we extend to any biconnected series-parallel graph of maximum degree at most 3. Since the biconnected components of every graph of treewidth 2 are series-parallel graphs, this yields, by use of bar-amalgamation, a quadratic-time algorithm for every graph of treewidth at most 2 and maximum degree at most 3.

Joint work with Michal Kotrbčik.