

**A Constructive Characterization
of the 3-connected
Triangle Free Graphs**

MATTHIAS KRIESELL · Hamburg

We present a method to construct the class \mathcal{C} of the finite simple 3-connected triangle free graphs from the 3-regular complete bipartite graph $K_{3,3}$ and the skeleton of a 3-dimensional cube by sequentially applying one of five operations, without leaving \mathcal{C} in the intermediate steps. Each of these operations can be considered as a sequence of at most six vertex splittings and edge additions.