

Generating theorem for minor relations of quadrangulations with minimum degree at least 3 on the sphere

Yuichiro Kawasaki, Yokohama National University

Let \mathcal{Q}_3 be the set of quadrangulations on the sphere with minimum degree 3. Nakamoto proved that any graph $G \in \mathcal{Q}_3$ can be reduced to the cube W_6 , only through \mathcal{Q}_3 , by a sequence of three reductions. In my talk, we prove that every graph $G \in \mathcal{Q}_3$ can be reduced to the cube by 13 reductions, only through \mathcal{Q}_3 , preserving “the minor relation” of graphs, that is, in each step when we obtain a new graph H from G by one of the reductions, H is always a minor of G .

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