

Decomposing series-parallel graphs into paths of length 3 and triangles - DTU Orbit (08/11/2017)

Decomposing series-parallel graphs into paths of length 3 and triangles

An old conjecture by Jünger, Reinelt and Pulleyblank states that every 2-edge-connected planar graph can be decomposed into paths of length 3 and triangles, provided its size is divisible by 3. We prove the conjecture for a class of planar graphs including all 2-edge-connected series-parallel graphs. We also present a 2-edge-connected non-planar graph that can be embedded on the torus and admits no decomposition into paths of length 3 and triangles.

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