



Strong Embedding of HP-Graphs on Surface with Higher Gen

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In 1990, Bondy posed the small circuit double cover (SCDC) conjecture: Every $2k$ -connected graph H with k circuits less than $|V|$ (the order of the vertex set V). The strong embedding conjecture states that every $2k$ -connected graph has a strong embedding on some surface in which the boundary of each face is a circuit. In this paper, we prove that every $2k$ -connected graph which has a strong embedding on the projective plane with one face of valence $|V|$ and the other faces of valence at most $2k$ has a strong embedding on some surface with $|V| - 1$ or less faces, which confirms the strong embedding conjecture.

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