

Towards a short proof of the Fulek–Kynčl criterion for modulo 2 embeddability of graphs to surfaces

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A connected graph K has a modulo 2 embedding to the sphere with g handles if and only if there is a general position PL map f of K in the plane and a symmetric square matrix A of size $|E(K)|$ with modulo 2 entries and zeros on the diagonal such that $rkA \leq 2g$ and $A_{\sigma,\tau} \equiv |f\sigma \cap f\tau|$ for any non-adjacent edges σ, τ . This is essentially proved by R. Fulek and J. Kynčl. The main of results of this note is an alternative proof of this criterion.

arXiv:2012.12070

Источники и литература

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