THE POLYNOMIAL METHOD FOR 3-PATH EXTENDABILITY OF LIST COLOURINGS OF PLANAR GRAPHS

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We restate Thomassen's theorem of 3-extendability [1], an extension of the famous planar 5-choosability theorem, in terms of graph polynomials, building on our earlier work on outerplanar graphs [2]. This yields an Alon–Tarsi equivalent of 3-extendability.

References

[1] C. Thomassen, Exponentially many 5-list-colorings of planar graphs, *J. Combinatorial Theory Ser. B* **97** (2007), 571–583.

[2] P. Gordinowicz, P. Twardowski, The polynomial method for list-colouring extendability of outerplanar graphs, *Ars Mathematica Contemporanea* **21** (2021), #P2.08.