

Poster Presentation

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Perfect colorings of hyperbolic buckyball tilings

Manuel Joseph Cruz Loquias¹, Dirk Frettlöh²

¹*Institute Of Mathematics, University Of The Philippines Diliman, Quezon, Philippines,* ²*Faculty of Technology, Bielefeld University, Bielefeld, Germany*

E-mail: mjcloquias@math.upd.edu.ph

Coxeter groups are used to study symmetries of tilings in hyperbolic d-space which are very "regular", e.g.: vertex-transitive, or those obtained from truncating tiles of regular tilings. We investigate the symmetry group of tilings of three-dimensional hyperbolic space by buckyballs (also known as C60 molecules named fullerenes), such as tilings discussed in [1], and apply methods of [2,3] to obtain perfect colorings of such tilings.

[1] Lück, R. & Frettlöh, D. (2014). Acta Phys. Pol. A 126, 524-526.

[2] De Las Peñas, M. L. A. N. et al. (2006). Z. Krist. 221, 665-672.

[3] Frettlöh, D. (2008). Z. Krist. 223, 773-776.

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