LACEABILITY IN INTERLEAVERS OF $C(2n + 1, 1, r)$

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Special Issue
Proceedings of International Virtual Conference on
"Mathematical Sciences and Applications, ICMSA - 2022"

Abstract: Interleavers have been used as a tool in the construction of good turbo codes which are the class of error correcting codes introduced by Berrou and Glavieux in 1993. The significance of Interleavers in communication systems such as mobile and satellite communications suffice to solve many issues that arises in data transformations. The concept of Hamiltonicity and Hamilton laceability in various interconnection network is an important consideration. The problem of determining a Hamilton circuit or a path in the given graph is not yet completely solved even though many sufficient conditions exists. As in the case of Hamilton graphs where it is necessary to find Hamilton cycles and Hamilton paths, there are graphs which are Hamilton laceable. In this article we explore interleavers $IG_N, N \geq 7$ of brick product graphs $C(2n + 1, 1, r)$ for even $r \geq 2$ and discuss its Hamilton laceability properties.

Keywords and Phrases: Interleaver graphs, Hamilton connected, Hamilton laceable.

2020 Mathematics Subject Classification: 05C45.