

## PERFECT SET OF EULER TOURS OF $K_{p,p,p}$

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### Abstract

Bermond conjectured that if  $G$  is Hamilton cycle decomposable, then  $L(G)$ , the line graph of  $G$ , is Hamilton cycle decomposable. In this paper, we construct a perfect set of Euler tours for the complete tripartite graph  $K_{p,p,p}$  for any prime  $p$  and hence prove Bermond's conjecture for  $G = K_{p,p,p}$ .

**Keywords:** compatible Euler tour, line graph, Hamilton cycle decomposition.

**2010 Mathematics Subject Classification:** 05C70.

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Received 22 January 2015  
Revised 5 November 2015  
Accepted 5 November 2015