The non-inclusive diagnosability of networks

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Abstract

Diagnosability is an important factor in multiple-processor systems defined as the maximum number of faulty nodes that a system can recognize. In this paper, we propose a new form of diagnosability called non-inclusive diagnosability that requires all faulty sets to be non-inclusive. Furthermore, we study the non-inclusive diagnosability of hypercubes and discuss the relationship between the diagnosability and non-inclusive diagnosability of triangle-free connected graphs under the PMC model.

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