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IDENTIFYING COMBINATORIALLY SYMMETRIC HIDDEN MARKOV MODELS*

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Abstract. A sufficient criterion for the unique parameter identification of combinatorially symmetric Hidden Markov Models, based on the structure of their transition matrix, is provided. If the observed states of the chain form a zero forcing set of the graph of the Markov model, then it is uniquely identifiable and an explicit reconstruction method is given.

Key words. Markov chains, Zero forcing, Parameter identification.

AMS subject classifications. 15A15, 15F10.

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