

Data Identification for Unique Algebraic Model

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Identification of models of gene regulatory networks (GRNs) is sensitive to the amount of data used as input. Considering the substantial costs in conducting experiments, it is of value to have an estimate of the amount of data required to infer the network structure. To minimize wasted resources, it is also beneficial to know which data are necessary to identify the network. We provide a combinatorial description for deciding when a set of data points yields to a unique Gröbner basis and hence identifies a unique minimal algebraic model.

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