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Hisayuki Hara* (hara@econ.niigata-u.ac.jp), 8050 Ikarashi 2-no-cho Nishi-ku, Niigata, 950-2181, Japan. *Identifiability of Gaussian DAG models with one latent source.*

Linear structural equations are used to model linear functional relationships between random variables of interest and additional independent Gaussian noise terms. The relationship between different variables within such a model can be represented by a directed graph. In this talk, in relation to the graphical structures, we study generic parametric identifiability of these models when the corresponding graphical representation is acyclic and one of the variables is a latent factor. We extend the results of previous work by exploiting the structure of Jacobian matrix for the parametrization map. We also give a condition under which generic parameter identifiability can be determined from identifiability of a model associated with a subgraph. (Received August 11, 2015)