



The University of Chicago
Department of Statistics

Master's Seminar

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Exploring Substructures in Bipolar Symptoms and Characteristics

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110 Eckhart Hall, 5734 S. University Avenue

ABSTRACT

Bipolar Disorder is a mood disorder characterized by both manic and depressive episodes. Our exploratory study uses a National Institute of Mental Health (NIMH) survey of two types of Bipolar patients—Bipolar 1 and Schizo-affective, manic patients. The dataset is large, containing over 900 variables divided into 14 sections. Our aim is to identify the underlying correlation structure linking the variables, and eventually use it to detect any subgroups of people within the two types of Bipolar patients. Principal component analysis and other graphical methods are used to illustrate variables that occur together, to identify outlying characteristics and to demonstrate natural groupings amongst patients.