



The University of Mississippi
Department of Mathematics

COLLOQUIUM

Friday, November 20, 2009 at 2:15 pm
Hume 331

MICHAL KAROŃSKI

Adam Mickiewicz University
Poznań, Poland

On the 1-2-3-conjecture

ABSTRACT. *A weighting of the edges of a graph with integer weights gives rise to a weighting of the vertices, the weight of a vertex being the sum of the weights of its incident edges. It is natural to consider edge weighting where we require that adjacent vertices have different weights that is, the vertex weighting induce a proper coloring of the graph.*

Conjecture (Karoński, Luczak and Thomason, 2001) *Edges of every graph that does not contain a component isomorphic to K_2 can be weighted with the integers $\{1, 2, 3\}$ such that the resultant vertex weighting is a proper coloring. In my talk I will discuss some recent developments regarding the above conjecture. In particular, I will present a joint result, with Maciej Kalkowski and Florian Pfender, showing that $\{1, 2, \dots, 5\}$ -edgeweighting suffices to properly color vertices of a graph.*

Faculty, Staff and Students are welcome



The University of Mississippi
Department of Mathematics

STATISTICS SEMINAR

Sparse Estimation and Inference for Censored
Median Regression

Justin Shows

Department of Mathematics and Statistics

Mississippi State University

Friday, December 4, 2009

HUME 331

3:00 P.M.

Abstract

Censored median regression has proved useful for analyzing survival data in complicated situations, such as when the variance is heteroscedastic, or the data contain outliers. The sparse estimation for censored median regression is an important problem for high dimensional survival data analysis. A new procedure is proposed to minimize an inverse-censoring-probability weighted least absolute deviation loss subject to the adaptive LASSO penalty and result in a sparse and robust median estimator. With a proper choice of tuning parameter, the procedure can identify the underlying sparse model consistently and has desired large-sample properties including root- n consistency and asymptotic normality. The procedure also enjoys great advantages in computation, since its entire solution path can be obtained efficiently.

Faculty, Staff and Students are welcome