

Statistics Seminar
Department of Mathematical Sciences

DATE:	Thursday, September 8, 2016
TIME:	1:15p-2:40p
LOCATION:	WH 100E
SPEAKER:	Qiqing Yu, Binghamton University
TITLE:	Piecewise Cox Models With Right-Censored Data

Abstract

We study a general class of piecewise Cox models. We discuss the computation of the semi-parametric maximum likelihood estimates (SMLE) of the parameters, with right-censored data, and a simplified algorithm for the maximum partial likelihood estimates (MPLE). Our simulation study suggests that the relative efficiency of the PMLE of the parameter to the SMLE ranges from 96% to 99.9%, but the relative efficiency of the existing estimators of the baseline survival function to the SMLE ranges from 3% to 24%. Thus the SMLE is much better than the existing estimators. To assess the appropriateness of the model assumption, we propose a simple diagnostic plotting method. This method enables us to determine an appropriate cut point. We apply the piecewise Cox model to our cancer research data.

From:
<https://www2.math.binghamton.edu/> - **Binghamton University Department of Mathematical Sciences**

Permanent link:
<https://www2.math.binghamton.edu/p/seminars/stat/160908>

Last update: **2016/09/07 16:18**

