

STATISTICS COLLOQUIUM

MONDAY, NOVEMBER 3, 2008

Talk: 4:00 PM – *Science Center 309*

Reception: 5:15 PM – *Science Center, 7th Floor*

“Prediction and Misclassification in Right-censored
Time-to-Event Data”

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ABSTRACT

Prediction with censored time-to-event data typically consists of risk stratification using estimated relative risk from an assumed correct proportional hazards regression model. This talk examines another risk stratification method based directly on estimated probabilities of failure in intervals that are members of a partition of the time axis. Using a working proportional odds model, we derive estimates of misclassification rates that are unbiased even under model misspecification, and show that these estimates are asymptotically normal. Perturbation re-sampling is used to compute confidence intervals for misclassification rates. The method is used to re-examine the accuracy of some risk stratification models that have been published in non-Hodgkin's lymphoma and other cancers.