

# The Towson University Mathematics Colloquium

*presents*

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## **Text Mining Using Rule-Based Classifier**

**Thursday, September 24**  
**4:00 p.m. – 5:00 p.m.**  
**7800 York Road, Room 320**

We will introduce the research area of text mining and present two methods for the classification of documents which are applicable to information retrieval. First, we will discuss the discovery of minimal sets of features which are necessary for explaining all observations, and the detection of hidden logical patterns in the data which are capable of distinguishing between two groups. Combinations of such patterns are used for developing a classification procedure. Second, we will present a classification model which uses a rule-based classifier utilizing the probabilistic logical patterns. An entropy distribution by using the successive algorithm which minimizes the cross entropy is used for classification. Performance of this method is evaluated by using simulation experiments.

*Refreshments will be served at 3:30 p.m.*



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**<http://www.towson.edu/math/colloquia>**