Department of Computer Science
University of Houston
Spring Seminar 2010

WHEN: **Friday, May 7, 2010**
WHERE: **PGH 232**
TIME: **11:00 AM**

SPEAKER: Dr. Christophe Giraud-Carrier, Brigham Young University

Host: Dr. Ricardo Vilalta

Title: Localized Learning Algorithm Behavior Analysis

Abstract: Diversity is generally used in ensemble creation, where its role is to improve global performance by ensuring that the learning algorithms that make up the ensemble exhibit local variations in prediction. We propose to take a complementary approach and treat diversity as a distance function for clustering learning algorithms. We show how such clustering helps in 1) discovering unexpected similarities among algorithms, and 2) developing improved algorithm selection systems. For the first point, we will focus on a cluster containing the unlikely pair Naive Bayes and Radial Basis Function Networks. We will use both analytical and empirical arguments to characterize their relationship. For the second point, we will describe our current system and present results of its use on a wide selection of learning tasks.

Bio: Christophe Giraud-Carrier is Associate Professor and coordinator of the Data Mining laboratory in the Department of Computer Science at Brigham Young University (BYU). His research interests include metalearning, social network analysis, medical informatics and applications of data mining. Dr Giraud-Carrier received the B.S., M.S., and Ph.D. in Computer Science at BYU in 1991, 1993, and 1994, respectively. Prior to returning to BYU, he spent 6.5 years at the University of Bristol, UK, where he founded and led the Machine Learning Group, and 3.5 years in industry at ELCA, a Swiss IT services company, where his responsibilities included the capitalization of Data Mining expertise, responses to tenders and the management of various projects for companies, local governments and NGOs. Dr Giraud-Carrier is the author or co-author of over 50 papers in refereed academic and professional journals and conferences. His research has been funded by industry, national research councils and the European Union.