

## DEPARTMENT OF STATISTICS AND BIOSTATISTICS

**Eric Marchand**

Department de Mathematiques  
Universite de Sherbrooke

*Predictive density estimation; recent results*

**November 8, 2017**

**3:20 – 4:20pm**

Light refreshments will be served

**110 Frelinghuysen Road**

**Hill Center, Room 552**

**Abstract:** This talk will address the estimation of predictive densities and their efficiency as measured by frequentist risk. For Kullback-Leibler,  $\alpha$ -divergence,  $L_1$  and  $L_2$  losses, we review several recent findings that bring into play improvements by scale expansion, as well as duality relationships with point estimation and point prediction problems. A range of models are studied and include multivariate normal with both known and unknown covariance structure, scale mixture of normals, Gamma, as well as models with restrictions on the parameter space.

**Bio** After obtaining his PhD in Mathematics from the University of Montreal in 1990, Eric joined the Universite of New Brunswick (Saint-John, Canada) where he became professor. Since 2004, he is a professor in the department of Mathematics at Université de Sherbrooke. Eric has been Associate Editor for the Journal of Multivariate Analysis since 2016. He is also the recipient of numerous NSERC Discovery Grants and the winner of the 2014 Pierre Robillard Award.

