SEMINÁRIOS

SÉRIES TEMPORAIS, ONDALETAS E DADOS FUNCIONAIS

LOCAL: **IMECC, Unicamp, Sala 221**

DATA: **02 de outubro de 2014**

HORÁRIO: **15h00**

NON-HOMOGENEOUS PROBABILISTIC CONTEXT NEIGHBORHOOD ESTIMATION ON TWO DIMENSIONAL LATTICE BY PRUNING SPANNING TREES

Aline Martines Piroutek, Unicamp

We introduce the Probabilistic Context Neighborhood model for two dimensional lattices as an extension of the Probabilistic Context Tree model in one dimensional space preserving some of its interesting properties. This model has a variable neighborhood structure with a fixed geometry but varying radius. In this way we are able to compute the cardinality of the set of neighborhoods and use the Pseudo-Likelihood Bayesian Criterion to select an appropriate model given the data. We represent the dependence neighborhood structure as a tree making easier to understand the model complexity. We provide an algorithm to estimate the model that explores the sparse tree structure to improve computational efficiency. We also present an extension of the previous model, the Non-Homogeneous Probabilistic Context Neighborhood model, which allows a spatially changing Probabilistic Context Neighborhood as we move on the lattice.