THE UNIVERSITY ⬡ OF HONG KONG

*Institute of Mathematical Research*
*Department of Mathematics*

# PROBABILITY AND INFORMATION THEORY SEMINAR

# Bayesian Approach for Approximate Tandem Repeats Detection

## Professor Xiaodan Fan
### The Chinese University of Hong Kong

**Abstract**

   DNA repeats, where a sequence pattern is adjacently repeated for multiple times, are closely related to the evolution of the inheritable information in DNA and are routinely used for human identification. Researchers from the engineering side have used many non-probabilistic methods to detect DNA repeats. We construct a probabilistic generative model for de novo tandem repeats detection. Bayesian approach is adopted to compute this model. Experiments on both synthetic data and real DNA data have shown the efficiency of our approach.

Date:   March 26, 2013 (Tuesday)

Time:   3:00 – 4:00pm

Place:   Room 309, Run Run Shaw Bldg., HKU

*All are welcome*