

December 2009

**MADALGO seminar by Jakob Truelsen, Aarhus University**

**Approximating the Mode and Determining Labels with Fixed Frequency**

**Abstract:**

In this talk we present a data structure to do a 3-approximation of the range mode with constant time queries and linear space. We present a data structure doing a  $(1+\epsilon)$ -approximation of the range mode in  $O(\log(1/\epsilon))$  time and  $O(n/\epsilon)$  time. Finally we present some work on the related Fixed Range Frequency problem.

Joint work with: Mark Greve, Allan Grønlund Jørgensen and Kasper Dalgaard Larsen