

**November 2011**

**MADALGO seminars by Wei Yu, Aarhus University**

**Data Structure Lower Bounds from Predecessor**

**Abstract:**

In this talk I will talk about how to derive super-constant query lower bounds by reductions from the predecessor problem. More concretely, this talk will include a round trip reduction between 2D range minimum query problem and 2D rectangular point location problem, and a reduction from the predecessor problem to these two problems. A brief idea on the proof of the predecessor lower bound will also be given.

**Joint work with Mihai Patrascu and Elad Verbin**