**DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE**
**UNIVERSITY OF SOUTHERN DENMARK, ODENSE**

# Mathematics seminar

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# Coarse index theory: C*-algebras, K-theory, and applications

## Thursday 21 April 2016, 14:15-15:15
## IMADA seminar room

**Abstract**
Look at a metric space from far away. The "local" features become indistinguishable; the integer lattice Z (the points seem closer and closer together) looks like R. In the talk, we will introduce associated "coarse" C*-algebras which capture exactly these ideas. Their K-theory gives important information about the space, and we will present tools to calculate it. One can encode the so-called Baum-Connes isomorphism conjecture into the framework of coarse geometry; and we will show how the methods of coarse geometry can be used to prove special cases of this conjecture.

**Host: David Kyed**