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

Mathematics seminar

James Gabe
Glasgow

Traceless AF embeddings and unsuspended E-theory

Thursday 3 May 2018, 14:15-15:15
IMADA Seminar Room

Abstract

A well studied, open problem in C*algebras is whether any separable, exact, quasidiagonal C*-algebra is AF embeddable, i.e. admits an embedding into an AF-algebra. Ozawa proved that the cone and the suspension of any separable, exact C*-algebra is AF embeddable, and therefore, surprisingly, many traceless C*-algebras turn out to be AF embeddable. I show that for separable, exact, traceless C*-algebras, AF embeddability and quasidiagonality are equivalent conditions characterised by the primitive ideal space having no non-empty, compact, open subsets.

The main intermediate result also implies that for nuclear C*-algebras, this condition of the primitive ideal space characterises exactly when Connes and Higson's E-theory can be unsuspended.