1078-46-339 **Xiaoman Chen*** (xchen@fudan.edu.cn), N.220 Han Dan Road, Shanghai, Shanghai, Shanghai 200433, Peoples Rep of China. *Approximation properties of uniform Roe algebras.*

In this talk some approximation properties in uniform Roe algebras are discussed. It is well known that there is some continuous function in the circle which can not be approximated by its Fourier series uniformly, an example of such function was given by Fejer. In uniform Roe algebras, such phenomena is described in sense of that operators can not be approximated by the truncations of themselves. Lots of such examples are shown. Meanwhile, a sufficient condition is given for the operators which can be approximated by the truncations of themselves. In G-invariant case the G-invariant approximation property is defined, this means that any operator in the uniform G-invariant Roe algebra can be approximated by G-invariant operators with finite propagation. The following result is proved: Let X be a discrete metric space with bounded geometry, an amenable group G acts on X isometrically. If X has property A, then X has G-invariant approximation property. (Received December 13, 2011)