



复旦大学数学科学学院 数学综合报告会

报告题目: An Index theorem for end-periodic Toeplitz operator

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报告摘要:

In this talk, I will present a recent result on the index theorem for End-Periodic Toeplitz operators. This result can be viewed as a generalization of the theorem by Dai and Zhang for Toeplitz operators on manifolds with boundary and also an odd-dimensional analogue of the index theorem for end-periodic Dirac operators by Mrowka-Ruberman-Saveliev. In particular, we find a new eta-type invariant in the result and we will show its relation with the eta-type invariant introduced by Dai-Zhang. The approach follows mainly the heat kernel method with a b-calculus-like modification. In the proof, we also introduce a beta invariant and a variation formula for it. This is a joint work with professor Guangxiang Su.

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