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Vida Milani* (vmilani3@math.gatech.edu), Georgia Institute of Technology, School of Mathematics, Atlanta, GA , and **Seyed M.H. Mansourbeigi** (s.mansourbeigi@ieee.org), Polytechnic University, Department of Electrical Engineering, NY. *Morse Theory: A tool for geometric classification of the noncommutative CW complexes.*

The Modification of Morse theory for C^* algebras provides tools for the geometric interpretation and classification of noncommutative CW complexes. Some examples to illustrate this interpretation in practice are given. we show how a modification of the classical Morse theory to the level of C^* -algebras will provide an innovative way to explain the geometry of noncommutative CW complexes through the critical ideals of the modified Morse function. This leads to some classification theory. (Received February 16, 2010)