Roger R. Smith* (rsmith@math.tamu.edu), Department of Mathematics, Texas A&M University, College Station, TX 77843, and Florin Pop (fpop@wagner.edu), Department of Mathematics, Wagner College, Staten Island, NY 10301. Cohomology theory for von Neumann algebras.

Building on the earlier work of Hochschild in the algebraic setting, Dick Kadison and his collaborators Barry Johnson and John Ringrose developed the theory of continuous Hochschild cohomology for von Neumann algebras. This talk will survey the earlier results in this area, and discuss more recent results on the second cohomology groups of non-prime factors. (Received September 05, 2014)