

Meeting: 999, Nashville, Tennessee, SS 3A, Special Session on Index Theory and the Topology of Manifolds

999-19-71 **Igor Nikolaev*** (nikolaev@math.ucalgary.ca), Department of Mathematics, University of Calgary, 2500 University Drive N.W., Calgary, Alberta T2N 1N4. *Topological invariants of 3-manifolds arising in the K-theory of AF C*-algebras*. Preliminary report.

Topology of 3-dimensional manifolds is largely controlled by so-called geodesic laminations on a surface embedded into the 3-manifold. We attach to given lamination a canonical AF C*-algebra, whose K_0 -group is shown to be dimension group of stationary type. The Morita invariants of the above K_0 -group (matrix of partial multiplicities, minimal polynomial, slope, etc) give plethora of old and new topological invariants of the 3-manifolds. (References: [math.GT/0111173](#), [math.GT/0206201](#), [math.OA/0310400](#).) (Received August 07, 2004)