

The algebraic eigenvalues conjecture for sofic groups

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If G is a group, then the integral group ring of G is the linear span over the integers of G inside its group von Neumann algebra. The algebraic eigenvalues conjecture asserts that any element of the integral group ring of G has only algebraic integers as eigenvalues. This conjecture is still open in general, but it has been verified by Andreas Thom when G is sofic. I will present a short proof of Thom's theorem using results from model theory for operator algebras. No previous knowledge of logic or model theory will be assumed.