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**Junehyuk Jung\*** (junehyuk@kaist.ac.kr), KAIST Department of Mathematical Sciences, 291 Daehak-ro , Yuseong-gu, Daejeon, 34141, South Korea. *Quantum Unique Ergodicity and the number of nodal domains of eigenfunctions.*

In this talk I'll first go over some problems and related results in spectral geometry. Then I'll explain how one can apply Quantum Ergodicity and Bochner's theorem to prove that the number of nodal domains of quantum ergodic sequence of even eigenfunctions tends to infinity as the eigenvalue  $\lambda \rightarrow +\infty$ . In particular, this implies that the number of nodal domains of Maass-Hecke eigenforms grows with the eigenparameter. This talk is based on the joint works with S. Zelditch and with S. Jang. (Received August 31, 2015)