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**Vilmos Totik\*** (totik@mail.usf.edu), 4202 E. Fowler Ave. PHY114, Tampa, FL 33620.

*Contractions and absolutely continuous equilibrium measures.*

The class  $L_0(H)$  of the so called cyclic quasianalytic contractions on a Hilbert space  $H$  contains a subclass  $L_1(H)$  consisting of contractions whose quasianalytic spectral set covers the unit circle  $T$ . The contractions in  $L_1(H)$  have rich invariant subspace lattices. We show that for every operator  $T \in L_0(H)$  there exists an operator  $T_1 \in L_1(H)$  commuting with  $T$ , so the hyperinvariant subspace problem for the two classes are equivalent. The operator  $T_1$  is found as an  $H^\infty$ -function of  $T$  using the Sz.-Nagy-Foias calculus. The existence of an appropriate function (actually a suitable conformal map lying in the disk algebra) is proved using potential theoretic tools by constructing, within a given set of positive measure on  $T$ , a suitable regular compact set with absolutely continuous equilibrium measure. (Joint work with László Kérchy, University of Szeged) (Received November 29, 2011)