Values distribution of almost periodic functions, spectral factorization and entire functions

09.10 Wayne Lawton (Siberian Federal University, Kransnoyarsk, Russia) Time: Thursday 25.07., 16:00 - 16:30, Room HS 4

Abstract: We recently derived an upper bound on the mean measure of the set where a nonzero Bohr almost periodic function f with bounded spectra has small modulus. This bound implies that $\log |f|$ is almost periodic in the sense of Besicovitch. We use this result to relate the Ahiezer factorization of an entire extension F of a nonnegative Bohr almost periodic function f with a bounded spectrum and the Helson-Lowdenslager spectral factorizations of its lift h to a compact group. We also discuss new classes of one dimensional quasicrystals related to both Bohr and Besicovitch almost periodic functions.