

CRITICAL VALUES OF INNER FUNCTIONS

OLEG IVRII

Let \mathscr{J} be the space of inner functions of finite entropy endowed with the topology of stable convergence. We prove that an inner function $F \in \mathscr{J}$ possesses a radial limit (and in fact, a minimal fine limit) in the unit disk at $\sigma(F)$ a.e. point on the unit circle. We use this to show that the singular value measure $\nu(F) = \sum_{c \in \text{crit } F} (1-|c|) \cdot \delta_{F(c)} + F_*(\sigma(F'))$ varies continuously in \mathscr{J} . Our analysis involves a surprising connection between Beurling-Carleson sets and angular derivatives. (This is joint work with Uri Kreitner.)