

Nikishin systems on star-like sets: limiting functions in ratio asymptotics

08.09**Abey López García***(University of Central Florida, USA)***Time:** Thursday 25.07., 15:30 - 16:00, Room HS 3

Abstract: Let $p \geq 2$ be an integer, and let $\{Q_n\}_{n \geq 0}$ be the sequence of monic, type II multiorthogonal polynomials associated with a Nikishin system of measures supported on a compact subset of the $(p+1)$ -star $S_+ = \{z \in \mathbb{C} : z^{p+1} \geq 0\}$. Under some conditions, the sequence of ratios Q_{n+1}/Q_n has periodic limits outside the support of the measures in the Nikishin system. In this talk I will describe the limiting functions in terms of certain conformal algebraic functions defined on a compact Riemann surface of genus zero. *Joint work with G. López Lagomasino.*