

SEMINÁRIO DO GRUPO DE FÍSICA MATEMÁTICA

Dia 22 de Maio (terça-feira), às 14h00, sala 6.2.33

On a problem posed by P. Turán: Problem LXVI

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Abstract: The following problem appears in the posthumous paper of P. Turán, "On some open problems in Approximation Theory": "It is known that the zeros of the n th orthogonal polynomial (with respect to a Lebesgue-integral function on an interval) separate the zeros of the $(n + 1)$ th polynomial. What corresponds to this fact on the unit circle?" The purpose of this talk is to extend in a simple and unified way the known results on Problem LXVI. It is a joint work with J. Petronilho. The talk is based on the work [1].

References:

[1] K. Castillo and J. Petronilho, Refined interlacing properties for zeros of paraorthogonal polynomials on the unit circle. Proc. Amer. Math. Soc. (DOI: <https://doi.org/10.1090/proc/14011>).