数論セミナー

日時：2019 年 3 月 20 日（水）16：00　〜
場所：自然学系棟 D814
講演者：Arnaldo Nogueira　（Institut de Mathématiques de Marseille）
講演題目：Rotation number of contracted rotations

Let $0 < a < 1$, $0 \leq b < 1$ et $I = [0,1)$. We call *contracted rotation* the interval map $\varphi_{a,b} : x \in I \mapsto ax + b \pmod 1$. Once the parameter a is fixed, we are interested in the family $\varphi_{a,b}$, where b runs on the interval I. We use the fact that, as in the case of circle homeomorphisms, any contracted rotation $\varphi_{a,b}$ has a rotation number which depends only on the parameters a et b. We will discuss the dynamical and diophantine aspects of the subject. In particular, we will show that, if a and b are algebraic numbers, the rotation number is rational using a transcendance theorem about the value of the Hecke-Mahler series at an algebraic point.

(The talk is based on a joint work with Michel Laurent.)

連絡先: 秋山 茂樹 (内：4395)