Analysis Seminar

Equidistribution for measures defined by digit restrictions

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Abstract: In this talk, we discuss the pointwise equidistribution properties of measures μ_p defined by digit restrictions on the b-adic expansion, where $b \geq 2$ is an integer. We prove that, if a sequence $(\alpha_n)_{n \geq 1}$ satisfies a certain b-adic diversity condition, then the sequence $(\alpha_n x)_{n \geq 1}$ is uniformly distributed modulo one for μ_p-a.e. x. We also find some sufficient conditions to ensure the b-adic diversity. Moreover, we apply these results to establish the b-adic diversity for the sequences that can be written as a certain combination of polynomial and exponential functions.

Date: 7 August 2023 (Monday)
Time: 16:00 p.m. – 17:00 p.m.

Venue: Room 222, Lady Shaw Building,
          The Chinese University of Hong Kong, Shatin

All are Welcome!