Boston University Number Theory Seminar

Sums of powers of digits:
Dynamics, density, sequences, and variations

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Monday, April 3 at 4:00 pm
665 Commonwealth Avenue, CDS 365
Tea and cookies at 3:30

Abstract: In this talk, I’ll discuss the dynamics resulting from the iterative application of the function mapping a positive integer to the sum of the $e^{th}$ powers of its base $b$ digits, for $e \geq 2$ and $b \geq 2$. Although these have been studied for over 75 years, there remain many open questions. I’ll describe what is known, indicating the key ideas in the proofs, and sample from what remains unknown. As time permits, I will delve into the many variations of these functions.