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MATHEMATICS DEPARTMENT 25TH YEAR SEMINARS

Model Theory of Beatty Sequences

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Abstract: The Beatty Sequence generated by an irrational $r > 1$ is $([nr] : n > 0)$, where $[c]$ denotes the integer part of a real number c . A well-known property of this sequence is that "any pattern that appears once has to appear infinitely many times; moreover we may determine when a pattern appears next time with a small error". After explaining what this means, we will present the proof of a strengthening of it. Our proof depends on the model theoretic study of the sequence and all the necessary background will be overviewed. (This is a joint work with Melissa Özşahakyan.)

Date: June 11, 2021; Friday

Time: 16:00

Place: Zoom



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