



**Speaker:** Andrei Jorza  
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Friday, December 13, 2013  
4:00 PM  
229 Hayes-Healy Hall

**Title:** Integers sequences and analysis

**Abstract:**

A theorem of Skolem states that if  $(x_n)$  is a sequence of integers satisfying an integer linear recurrence relation then the set of indices  $n$  where  $x_n$  vanishes consists of a finite set together with a finite union of infinite arithmetic progressions. The known proofs of this theorem involve ideas from analysis over the  $p$ -adic numbers, in particular that analytic functions have finite many zeros. I will describe how analysis relates to integer sequences in Skolem's theorem and suggest other implications of analysis in algebraic problems.