

MATHEMATICS SEMINAR SERIES

Limning Limits (or Using Limits to get from here to there)

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Thursday, December 4, 2003 at 1:00 pm
6215, Vertical Campus

First illustrations will be numerical sequences with the unsurprising limits and then related series with the more interesting limits, possibly resolving Zeno's arrow paradox. With some effort, one can be convinced that the harmonic series has no finite limit even though some computer experimentation might suggest otherwise.

Other illustrations include the definite integral as a (generalized) limit and how mathematical induction/recursion and the growth/death of Hydra might be seen as kinds of limits. Also touched are contexts such as the Sorgenfrey line in which all bounded decreasing sequences of real numbers have limits, as usual, yet no strictly increasing sequence (bounded or not) has a limit.

This does not exhaust concepts of limits and it does raise questions of what the above illustrations have in common, and just what limits can be.

ALL FACULTY AND STUDENTS INVITED
REFRESHMENTS WILL BE SERVED!