

Abstract

The abstract should be in the form of a brief and concise statement of the main results or points of view of the paper, without demonstrations and with a minimum of formulae. It should not exceed 100 words and should be compressed, if possible, into a single paragraph. It should be written in the third person. The abstract should be type-written and in a form suitable for immediate publication in the MONTHLY.

The deepest and most abiding questions in the history of mathematics are rooted in the problem of defining the real line. Despite a consensus achieved 100 years ago by Dedekind, Weierstrass and their colleagues, contemporary mathematics harbors several quite different models for the real line--some with infinitesimals, some that fail to satisfy the continuum hypothesis, and some that are defined by strict construction. The forces which influenced these many models have also molded modern mathematics, so the evolution of the models for the real line serves as a microcosm of the essential processes of mathematics.

Association of America: Yes No

Member of the Mathematical Association of America: Yes No

Address: _____

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Name of Author: _____

Title of Paper: _____

Abstract of Proposed Presentation: _____

ABSTRACT OF PAPER
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The paper and most abstractions in the history of mathematics are rooted in the problem of defining the real line. Dedekind's construction of the real line was followed by Weierstrass and other mathematicians. Dedekind's construction and some that are defined by similar constructions. The former which furnished these many models have also yielded models in mathematics, so the evolution of the models for the real line serves as a microscope of the essential progress of mathematics.

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ABSTRACT OF PAPER

Title of paper: _____

"Ghosts of Departed Quantities"

Time _____ 50 _____ minutes.

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Member of the Mathematical Association of America: Yes No