

Taylor series by nonstandard analysis

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102 Bradley Hall, 4:00 pm
(Tea 3:30 pm Math Lounge)

Abstract

Nonstandard analysis is an approach to calculus that uses infinite and infinitesimal numbers instead of limits. After a brief introduction to nonstandard analysis, I will show how the methods of nonstandard analysis can be used to develop Taylor series. The approach will be based on Taylor's original approach from 1715. No prior knowledge of nonstandard analysis will be assumed.