

Abstract Submitted
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Velocity without Limits Revisited – How Physics with College Algebra and Physics with Calculus becomes a distinction without a difference WILLIAM CROMBIE, The Algebra Project, Inc. — We take a second look at Saletan’s American Journal of Physics article (1973) which describes a method, appropriate to elementary physics courses, for defining the instantaneous velocity of a moving object and for computing derivatives without recourse to limits. The mathematics behind our extended method enters at the level of College Algebra and provides an alternative formulation to the Calculus based on either infinitesimals or limits. This approach holds the promise of providing access to Calculus and those quantitative disciplines that depend upon Calculus to a larger pool of students than is presently engaged in the advanced study of STEM disciplines.

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