

Abstract Submitted
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String theory: a model beyond popular physics¹ EDWARD WUNDER, Mississippi State University and Texas A&M Cyclotron — String theory was originally proposed as a theory of hadrons in the 1950's. Though its nuclear roots were eventually supplanted by quantum chromodynamics, string theory continues to hold significant potential. The physical and mathematical ideas of such a theory are easily extended to all branches of theoretical physics. For the layperson interested in string theory, there is a vast amount of accessible literature. However, when one chooses to seek a level of understanding beyond popular physics, the prerequisite knowledge renders the subject inaccessible. It is my intention to provide a more involved understanding of the basic ideas of bosonic string theory at a level that requires only the solution of the differential equations found in every undergraduate physics class. Beginning with the classical action for a point particle, we will follow a series of logical steps to illustrate how strings can manifest as a variety of bosons. While this model of string theory lacks fermions, its purpose as a pedagogical tool cannot be underestimated.

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