# What is a Pseudoknot?

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007 Kemeny, 4:00PM
Tea is at 3:30 pm in 300 Kemeny

**Abstract**

Knots are terribly interesting mathematical objects that have been studied rigorously for about the last century. An attempt at classification of knots was originally motivated by a misguided connection between knots and chemistry, but we have since learned of many useful applications of knot theory in the sciences. One important application is in the study of DNA replication in biology. The use of knots as models of DNA inspired a new notion of a knot-like object called a pseudodiagram. Since their introduction in 2009, we have discovered many interesting properties of pseudodiagrams. We were also led to invent a bonafide knot theory called Pseudoknot Theory. In this talk, we will learn what is known about pseudodiagrams and pseudoknots. Moreover, we will discuss opportunities for future exploration of pseudoknot theory.

This talk should be accessible to undergraduates.