

1135-VU-1936 **Zach Sorenson*** (sore1324@stthomas.edu) and **Isaac Vraspir**. *Recognizing knot types using neural networks*. Preliminary report.

Artificial intelligence and neural networks seem to be in the news daily. Among the long list of applications, these algorithms can be used for image processing, e.g. to differentiate between pictures of different types of animals.

Meanwhile, the overarching problem in knot theory is to classify the knot type of a given configuration. Can neural nets be used to recognize knot types? We analyze the simple case of six-edge equilateral knots, in which case only three different knot types are possible: unknot, positive trefoil, and negative trefoil. (Received September 25, 2017)