

1145-54-1911 **Mustafa Hajj, Jesse S F Levitt*** (jslevitt@usc.edu) and **Radmila Sazdanovic**. *Machine Learning Revelations from the Color Jones Polynomial*. Preliminary report.

A multitude of knot invariants have been found and calculated in the last few decades. In this talk we discuss several lessons machine learning has gathered from analyzing this menagerie of information. Critically, we find that the color Jones polynomial encodes a significant level of information about the signature of a knot. This has important ramifications for a conjecture of Garoufalidis and the calculation of the Khovanov polynomial. (Received September 24, 2018)