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Mustafa Hajj and **Jesse S F Levitt***, 3620 S Vermont St, KAP 104, Los Angeles, CA 90089,
and **Radmila Sazdanovic**. *The Jones Polynomial is Almost Three Dimensional and other
Lessons from Machine Learning on Knot Invariants*.

Over 350 million prime knots have been identified so far making the field ripe for analysis from the perspective of Big Data. This talk aims to review recent conjectures, counterexamples and proofs derived from the application of machine learning techniques to families of knot invariants. We hope to highlight the internal structure of the Jones polynomial, and what it tells us about both the signature and Rasmussen's s-invariant following a past conjecture of Garoufalidis. We also review how a similar analysis of both the Alexander polynomial and the recent knot polynomial of Dror Bar-Natan and Roland van der Veen reveal additional internal structure. (Received April 13, 2019)