Improving the Seifert inequality for the genus of a knot using the Links-Gould invariant of links

Ben-Michael Kohli*[1]

[1]YMSC, Tsinghua University – Chine

Résumé

I will show how the Links-Gould invariant of links can be used to systematically improve the well known lower bound for the 3-genus of a knot known as the Seifert inequality, that is obtained from the Alexander polynomial.
For example, this allows us to straightforwardly detect genus for the Kinoshita-Terasaka/Conway pair of mutant knots, where the Seifert inequality and the Levine-Tristram signature fail to do so.
This is work in common with Guillaume Tahar.

*Intervenant