

1017-57-206

**Oliver T Dasbach\***, LSU, Department of Mathematics, Baton Rouge, LA 70808. *Torus knot complements: A natural series for the natural logarithm.* Preliminary report.

Lueck expressed the Gromov norm of a knot complement in terms of an infinite series that can be computed from a presentation of the fundamental group of the knot complement.

We point out that Lueck's formula, applied to torus knots, yields surprising power series expansions for the logarithm function. This generalizes an infinite series of Lehmer for the natural logarithm of 4. (Received February 21, 2006)