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Marion Campisi* (marion.campisi@sjsu.edu) and **Nicholas Cazet**. *Vertex distortion of knots in the cubic lattice.*

The vertex distortion of a conformation of a lattice knot is the supremum of the ratio of the distance between a pair of vertices along the knot and the distance in the ℓ_1 norm. We generalize results of Gromov and Pardon about the distortion of smooth knots and show that the distortion of a lattice knot is 1 if and only if it is the unknot and that there are minimal stick number knot conformations with arbitrarily high distance. (Received August 22, 2018)