

# Pumagrass

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**Speaker:** Elia Portnoy  
**Title:** Knot Distortions

## Abstract

Is it true that any knot can be embedded in  $\mathbf{R}^3$  so that the ratio between the intrinsic distance and induced distance is not too large? Pardon first showed that the answer was surprisingly, No! Later Gromov and Guth constructed knots with arbitrarily large distortion using hyperbolic geometry of 3-manifolds. I will try to sketch how this connection was made.