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Spaces of polynomial knots.

A polynomial knot is a smooth embedding $\kappa : \mathbb{R} \rightarrow \mathbb{R}^n$ whose components are polynomials. The case $n = 3$ is of particular interest. It is both an object of real algebraic geometry as well as being an open ended topological knot. In this talk I will give a number of examples, and then I will describe several different types of equivalences and also the structure of the space of these knots. In my other talk (Session IV on Geometry and Topology, at 3:15 on Sunday) I will describe methods of constructing examples and simplifying their equations. (Our 2006 REU students will describe their work in the undergraduate poster session.)