1077-VJ-2199   **Lee Stemkoski*** (`stemkoski@adelphi.edu`), Adelphi University, 1 South Ave., Garden City, NY 11530. *The Coefficient Space of Polynomial Knots.*

Polynomial knots are embeddings of $\mathbb{R}$ in $\mathbb{R}^3$, where the coordinate functions of the embedding are polynomials. The one-point compactification of such curves are topological knots. For a parametrization with polynomials of fixed degree, we investigate the space of coefficients of the polynomials. In particular, we find algebraic equations for the boundaries of regions corresponding to various knot types. (Received September 21, 2011)