1033-57-32 **Erica Flapan*** (eflapan@pomona.edu), Department of Mathematics, Pomona College, Claremont, CA 91711, **Blake Mellor** (bmellor@lmu.edu), Department of Mathematics, Loyola Marymount University, Los Angeles, CA 90045, and **Ramin Naimi** (rnaimi@oxy.edu), Department of Mathematics, Occidental College, Los Angeles, CA 90041. *Intrinsic linking and knotting is arbitrarily complex.*

The study of embeddings of graphs in $\mathbb{R}^3$ is a natural extension of knot theory. However, in contrast with knots whose properties depend only on their extrinsic topology, there is a rich interplay between the intrinsic structure of a graph and the extrinsic topology of all embeddings of the graph in $\mathbb{R}^3$. Conway and Gordon obtained groundbreaking results of this nature by showing that every embedding of the complete graph K_6 in $\mathbb{R}^3$ contains a non-trivial link and every embedding of K_7 in $\mathbb{R}^3$ contains a non-trivial knot. Because this type of linking and knotting is intrinsic to the graph itself rather than depending on the particular embedding of the graph in $\mathbb{R}^3$, K_6 is said to be *intrinsically linked* and K_7 is said to be *intrinsically knotted*. In this talk, we present a survey of results about intrinsic knotting and linking, including our recent result that sufficiently large complete graphs exhibit simultaneous intrinsic linking and knotting which are both arbitrarily complex. (Received August 12, 2007)