1020-57-154 **Yuanan Diao** and **Claus Ernst*** (claus.ernst@wku.edu), Department of Mathematics, Western Kentucky University, Bowling Green, KY 42101, and **Andrzej Stasiak**. *A Partial Ordering of Knots Through Diagrammatic Unknotting.*

In this paper we define a partial order on the set of all knots and links using a special property derived from their minimal diagrams. A knot or link $L$ is called a *predecessor* of a knot or link $K$ if $Cr(L) < Cr(K)$ and a diagram of $L$ can be obtained from a minimal diagram $D$ of $K$ by a single crossing change. In such a case we say that $L < K$. We investigate the sets of knots that can be obtained by single crossing changes over all minimal diagrams of a given knot. We show that these sets are specific for different knots and permit partial ordering of all the knots. Some interesting results are presented and many questions are posed. (Received August 25, 2006)