1014-12-15 **Hendrik W. Lenstra Jr.***, Universiteit Leiden. *Entangled radicals, Part III.*

Parts I and II were devoted to an algebraic study of the field $K(\sqrt{K^*})$ obtained by adjoining, to a field K of characteristic zero, the group $\sqrt{K^*}$ of all "radicals" over K. Also, it was suggested that the results obtained might find applications in computer algebra. The present lecture speculates on the form these applications might take, and it reports on a number of algorithmic results that have been achieved. (Received April 05, 2005)