1014-55-1576　　　　　**Kheira Ameur\*** (`ameur@mail.usf.edu`), 4202 East Fowler, phy 114, Tampa, FL 33620. *Quandle Cocycle Invariants and Tangle Embeddings.*

Quandles are sets with self distributive binary operations that generalize The Fox-n colorings. A quandle coloring along with a quandle cocycle can be used to define invariants for knots and knotted surfaces. For some Alexander quandles we contruct some polynomial type cocycles, we then use them to compute invariants for some families of knots and twist-spun knots and to solve some tangles embeddings problems. (Received September 29, 2005)