1108-16-455 **Charlotte Ure\*** (`urecharl@msu.edu`), Department of Mathematics, MSU, C543 Wells Hall, 619 Red Cedar Road, East Lansing, MI 48824. *Maximal Dimension of Kummer Subspaces of Tensor Products of Cyclic Algebras of Degree Four.*

The maximal dimension of a Kummer subspace of tensor products of cyclic algebras can be used to bound the symbol length of any central simple algebra of a certain degree. Using graph theory, we show that in the special case of degree four, the maximal dimension of a Kummer subspace is $4n + 1$. This is a work in progress. (Received January 19, 2015)