1048-16-178 **Darrell E. Haile*** (haile@indiana.edu), Department of Mathematics, Indiana University, Bloomington, IN 47405, and **Jean-Pierre Tignol** (jean-pierre.tignol@uclovain.be), Departement de mathematiques, Universite catholique de Louvain, chemin du cyclotron, 2, Louvain-la-Neuve, Belgium. *On the Okubo product and a theorem of Rost.* Preliminary report.

Let F be a field containing a primitive third root of unity. If A is a central simple F–algebra of degree 3, the subspace A_0 of elements of trace 0 is an 8 dimensional space which is hyperbolic with respect to the trace form. This space admits a product, the Okubo product, useful for understanding the geometric properties of A_0. We give a derivation of this product and then use it to give a geometric proof of a theorem of Rost on the chain length of a degree 3 algebra. (Received February 06, 2009)