Developed by Avramov and Buchweitz, the theory of support varieties over a complete intersection ring encodes important homological information about a module into a geometric object. In this talk, we investigate the support variety of the tensor product of two modules using the geometry of the support varieties of the original modules. Furthermore, we study the relationship between the dimensions of modules and their tensor product, allowing us to relate the support variety of a module to its actual support. (Received September 09, 2014)