Meeting: 999, Nashville, Tennessee, SS 6A Special Session on Local and Homological Algebra

999-13-142 **Greg Piepmeyer** and **Paul C Roberts*** (roberts@math.utah.edu), Department of Mathematics, University of Utah, 155 S 1400 E, Rm 233, Salt Lake City, UT 84112-0090.

Constructing modules with prescribed intersection properties.

In recent work, we have developed a method of producing modules of finite length and projective dimension with prescribed intersection properties, giving a concrete construction for the modules proven to exist by a theorem of Roberts and Srinivas. However, the only verification that it gave the correct answer was a direct computation in individual cases. In this talk we summarize the method and prove that it gives the correct multiplicity in general. (Received August 19, 2004)