

1116-05-1548 **Steven Michael Senger***, Cheek Hall 23M, 901 S. National St., Springfield, MO 65897. *On the number of triples of points determining a pair of dot products.*

Given a subset, $E \subset R^d$, of a vector space over a field or a module over a ring of integers, we offer bounds on the number of triples of points from E that determine a given pair of dot products, α and β . We obtain different bounds for different settings and restrictions on α and β . (Received September 20, 2015)