# Abstract

On numerous occasions, Hindman asked the following question: Is it true that for any finite coloring of natural numbers, there are two natural numbers x and y such that the set {x,y,x+y,xy} is monochromatic? In this talk, we will introduce some progresses of the above question in certain fields and natural numbers and our recent results on it. This talk is based on a joint work with Huang, Shao, Tao and Yang.