1125-43-2576 **Joseph W Iverson** (jiverson@math.umd.edu), **John D Jasper*** (john.jasper@uc.edu) and **Dustin G Mixon** (dustin.mixon@afit.edu). *Equiangular tight frames from association schemes.*

An equiangular tight frame (ETF) is a set of unit vectors whose coherence achieves the Welch bound. Though they arise in many applications, there are only a few known methods for constructing ETFs. One of the most popular classes of ETFs, called harmonic ETFs, is constructed using the structure of finite abelian groups. In this talk we will discuss a broad generalization of harmonic ETFs. This generalization allows us to construct ETFs using many different structures in the place of abelian groups, including nonabelian groups, Gelfand pairs of finite groups, and more. (Received September 20, 2016)