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**Wei-Hsuan Yu** ([mathyu@math.umd.edu](mailto:mathyu@math.umd.edu)), University of Maryland, College Park, MD 20742. *Two distance sets and finite unit norm tight frames*. Preliminary report.

In this talk I will present a characterization of the intersection of the set of two distance sets of  $N$  unit norm vectors in  $\mathbb{R}^d$  and the class of finite unit norm tight frames. As a consequence we show that two distance sets can be constructed when a strongly regular graph with certain parameters exist. I will also present some new examples of two distance sets and describe the special case of equiangular lines. This is a joint work with A. Barg and W-H Yu. (Received January 28, 2014)