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Biangular lines in \mathbb{R}^n

Let V be a set of unit vectors in \mathbb{R}^n . V is said to consist of *biangular lines* if $|\langle u, v \rangle| \in \{0, \alpha\}$ for all u and v in V , where $\langle \cdot, \cdot \rangle$ is the standard Euclidean inner product in \mathbb{R}^n and $0 < \alpha < 1$. Mutually unbiased Hadamard matrices form special classes of biangular lines. Biangular lines seem to have very nice combinatorial properties. The talk is about the construction and applications of some classes of biangular lines. This is a joint work with Darcy Best and Wolf Holzmann.