

Positive definite functions and the problem of mutually unbiased bases

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We will review the problem of existence of a maximal system of mutually unbiased bases (MUBs) in \mathbb{C}^n , and provide a possible approach by positive definite functions on the unitary group $U(n)$. IN particular, I will describe why this approach is hopeful in proving non-existence of maximal sets of MUBs in dimension 6.