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**Record 1 of 1****Title:** On mutually unbiased unitary bases in prime-dimensional Hilbert spaces**Author(s):** Nasir, RNM (Nasir, Rinie N. M.); Shaari, JS (Shaari, Jesni Shamsul); Mancini, S (Mancini, Stefano)**Source:** QUANTUM INFORMATION PROCESSING **Volume:** 18 **Issue:** 6 **Article Number:** 178 **DOI:** 10.1007/s11128-019-2298-2 **Published:** JUN 2019**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 0**Cited Reference Count:** 17

Abstract: Akin to the idea of complete sets of mutually unbiased bases for prime-dimensional Hilbert spaces, H_d , we study its analogue for a d -dimensional subspace of $M(d, \mathbb{C})$, i.e. mutually unbiased unitary bases (MUUBs) comprising of unitary operators. We note an obvious isomorphism between the vector spaces and beyond that, we define a relevant monoid structure for H_d isomorphic to one for the subspace of $M(d, \mathbb{C})$. This provides us not only with the maximal number of such MUUBs, but also a recipe for its construction.

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