1056-06-89 **Fusun Akman*** (akmanf@ilstu.edu), Illinois State University, Department of Mathematics, Campus Box 4520, Normal, IL 61790-4520, and **Papa Amar Sissokho**. *The lattice of finite vector space partitions and its Möbius function.*

Let $V = V(n, q)$ denote the vector space of dimension n over $GF(q)$. A vector space partition of V is a collection Π of subspaces of V such that every nonzero vector in V is contained in exactly one subspace belonging to Π. We show that the set of all vector space partitions of V form a poset under refinement, with unique minimum and maximum elements, and introduce a lattice structure on it. Furthermore, we compute the Möbius function of this poset for small n and conjecture that its value approaches that of the Mobius function of a set partition as $q \to 1$. (Received July 24, 2009)