1030-05-267   **Saad El-Zanati**, Mathematics Department, Illinois State University, Normal, IL 61790, **George Seelinger**, Mathematics Department, Illinois State University, Normal, IL 61790, **Papa Sissokho*** (`psissok@ilstu.edu`), Mathematics Department, Illinois State University, Normal, IL 61790, **Larry Spence**, Mathematics Department, Illinois State University, Normal, IL 61790, and **Charles Vanden Eynden**, Mathematics Department, Illinois State University, Normal, IL 61790. *Partitions of finite vector spaces into subspaces.*

Let V be a finite dimensional vector space over a finite field. A subspace partition of V is a collection of subspaces $W_1, W_2, \ldots, W_k$ such that

1. each vector u in V belong to some W_i,

2. W_i and W_j only intersect at the 0-vector for $i \neq j$.

In this talk, we will discuss the existence of subspace partitions and its applications to graph theory. (Received August 05, 2007)