Discrete Mathematics Seminar

Illinois State University

2:00–2:50 pm, February 6@ STV 120

Speaker: Amin Bahmanian, Illinois State University

Hilton's Theorem and Beyond

Thirty six year ago, Hilton showed that a k-edge-coloring of K_m can be embedded into a Hamiltonian decomposition of K_{m+n} if and only if $(m+n-1)$ is even, $k=(m+n-1)/2$, and each color class of K_m is a collection of at most n disjoint paths, where isolated vertices in each color class are to be counted as paths of length 0. In this talk we give various extensions of this result.