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Independence Equivalence Class of Paths and Cycles

The independence polynomial of G , denoted by $i(G, x)$ is defined by $i(G, x) = \sum_{k=0}^{\alpha} i_k x^k$ where i_k is the number of independent sets of size k in G and α is the independence number. Two graphs G and H are considered independence equivalent if $i(G, x) = i(H, x)$. The independence equivalence class of G is the set of all graphs independence equivalent to G . In this talk we will discuss the independence equivalence class of P_n and C_n . This is joint work with Jason Brown and Ben Cameron.