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Ruy Fabila-Monroy* (ruyfabila@math.cinvestav.edu.mx), Av. Instituto Politécnico Nacional 2508, Col San Pedro Zacatenco, 14740 Mexico D.F., Mexico, and **David Flores-Peñaloza**, **Clemens Huemer**, **Ferran Hurtado**, **Jorge Urruta** and **David Wood**. *Token Graphs*.

For a graph G and integer $k \leq 1$, we define the token graph $F_k(G)$ to be the graph with vertex set all k -subsets of $V(G)$, where two vertices are adjacent in $F_k(G)$ whenever their symmetric difference is a pair of adjacent vertices in G .

Token graphs have a nice intuitive interpretation by considering k indistinguishable tokens placed on the vertices of G (at most one token per vertex); constructing then a graph whose vertex set are all the possible token configurations and where two configurations are adjacent if one can be reached from the other by sliding a token along an edge from its current position to an unoccupied vertex.

In this talk we will introduce the token graphs proving various of its properties in terms of the same properties of the original graph. (Received April 14, 2010)