Abstract:

A fast method for constructing efficient solutions for graphical mutual exclusion problems based on semaphores associated with processes is described. The number of semaphores used is equal to the number of processes in the mutual exclusion problem. The solution is both deadlock-free and starvation-free, and allows a reasonable degree of concurrency. This method can be generalized to deal with generalized semaphore systems such as the PV_{chunk}.

Citation:

Yue, K., & Jacob, R., An Efficient Starvation-Free Semaphore Solution for the Graphical Mutual Exclusion Problem. The Computer Journal. vol.34, no.4, pp345-349, August 1991.