

Übungen zur Vorlesung
Methoden des Algorithmenentwurfs
SS 2017
Blatt 10

Aufgabe 25:

Show that the *Maximum-Cut Problem* can be considered as special input case of the problem of finding a stable state in a Hopfield neural network.

Aufgabe 26:

Prove the statement that the *Big-improvement-flip algorithm* returns a cut (A, B) with $(2 + \epsilon)w(A, B) \geq w(A^*, B^*)$.

Aufgabe 27:

Prove that for the network depicted on slide 14 in the presentation of June 28th the following statement holds: The solution, in which each agent uses its direct path from s , is the unique Nash equilibrium.