```
Input: undirected G(V, E), int k, int τ

1. int numEdgesCrossing = INF;

2. while (numEdgesCrossing > τ)

3. int[] clusterCenters = pickKRandomClusterCenters(G)

4. assignEachVertexToClosestClusterCenter(G, clusterCenters)

5. numEdgesCrossing = countNumEdgesCrossingClusters(G)
```