grafenkleuring pseudocode

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Pseudocode GCP

Algorithm 1: General algorithm for the GCP

Data: fileLocation
Result: graph
graph ← import(fileLocation);
preprocess(graph);
contructColoring(graph);
improveColoring(graph, A, d);

Function preprocess(graph)

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foreach *vertex1 ∈ graph.vertices* **do**
    foreach *vertex2 ∈ graph.vertices* **do**
        if *vertex1.adjacentVertices ⊆ vertex2.adjacentVertices* **then**
            vertex1 ← vertex2;
            graph.remove(vertex1);
        end
    end
end

Function constructColoring(graph, k)

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uncoloredCount ← graph.vertices.size;
while *uncoloredCount ≠ 0* **do**
    vertex ← maxSaturation(graph.vertices);
    colorClass = vertex.saturation + 1;
    if *colorClass >= k* **then**
        vertex.color ← randint(0, k-1);
    else
        vertex.color ← colorClass
    end
end

Function improveColoring(graph, A, d)
tti ← 0