Latex Template

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May 25, 2017

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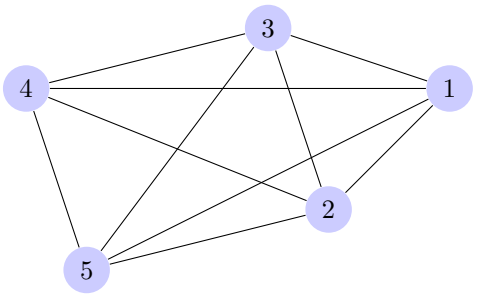
1 Statement

We've been given the following problem to talk about.

Minimum cut linear arrangement

Given a graph $G = (V, E)$, compute a one-to-one function $f : V \to [1..|V|]$ so that the maximum number of cut edges in any integer point is minimised, i.e.

$$\max_{i \in 1..|V|} |\{\{u, v\} \in E : f(u) \leq i < f(v)\}|$$



2 Decisional Problem

Given a graph $G = (V, E)$ and $k \in \mathbb{N}$, say if there exists one ordering of the vertexs so that the maximum number of cut edges in any integer point is less than or equal k, i.e.

$$\exists f : V \to [1..|V|] | \max_{i \in 1..|V|} |\{\{u, v\} \in E : f(u) \leq i < f(v)\}| \leq k$$