# 1  Problems list

## 1.1  Unsolved problems

- US graphs, $\omega = 2$, $\Delta = 3$, can a Type 2 graph exist?

- On a grid: $<$ order is proper.

- On a grid: can we add planarity?

- Finding small graphs that can't be US or conditions for US

## 1.2  Solved problems

- US graphs, $\omega = 2$, $\Delta = 4$, a Type 2 graph does not exist.

- On a grid: $<_d$ is well defined.

- Every US graphs have four vertices of degree less than 2.