Data mining

Detect : → either settings that perform well
→ or settings that lead to failure

Produce glass : a certain number of measures
→ various temperatures
→ pH
—
⋮

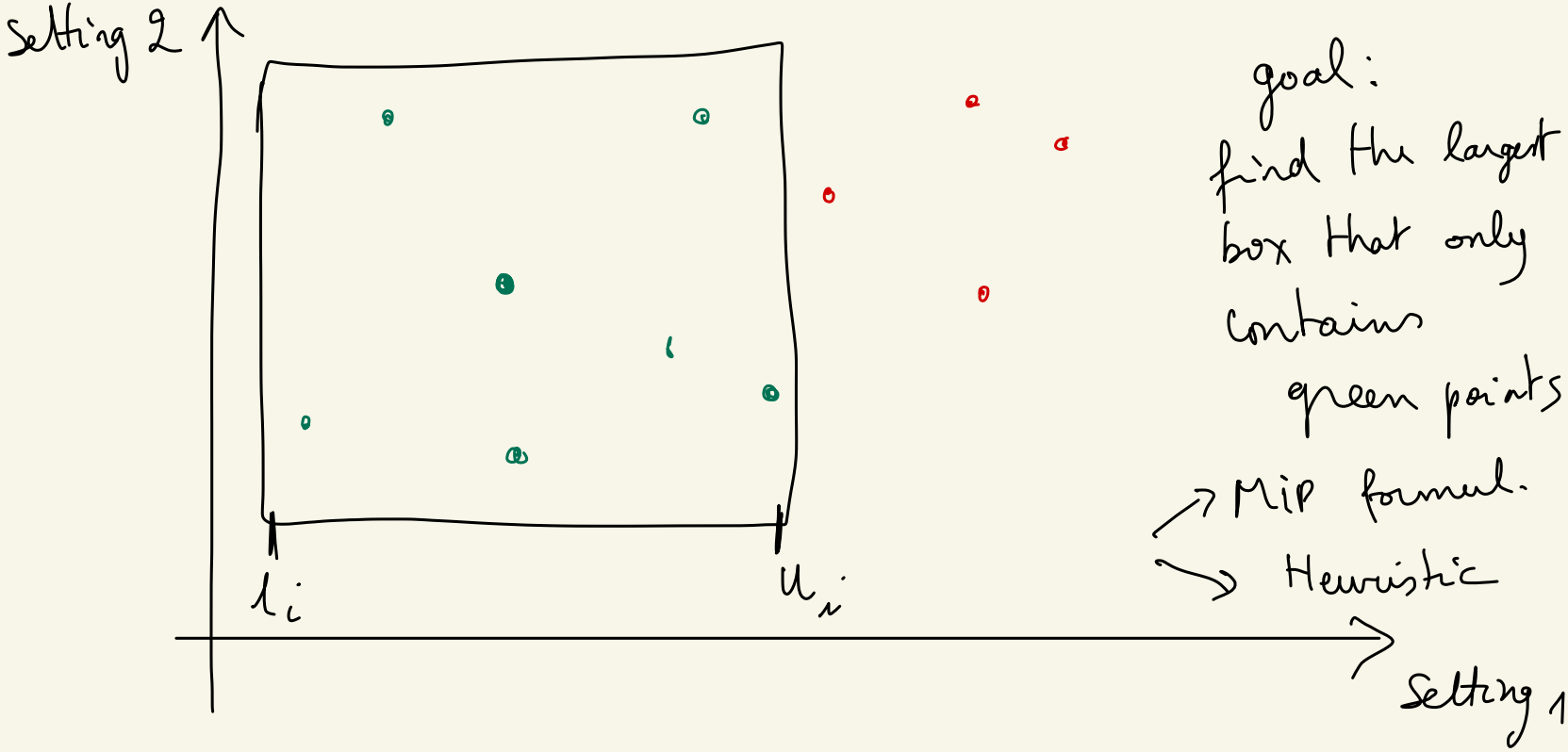
Big csv file

Each row corresponds to one output

	Settings (or the measures)				Output = measure of the quality
row i = item i that is produced	893	1020	...	7.3	0.2
					1.5

[determine a threshold
≤ 1 : good
> 1 : bad

how bad is your glass



goal:
find the largest box that only contains green points

→ MIP formul.
→ Heuristic

→ setting should be expressed as intervals
→ we look for boxes

Bonus: do it with a box defined over at most 5 variables!

Any programming language

- python / pyomo to formulate the MIP
  Gurobi python API
- julia / JuMP to formulate the MIP.
  ↓
  julialang.org

Deadline: May 16 (last Monday)

short report: roughly 3 pages → model in a human readable way
↘ explanation of the algorithm.

May 18: presentations

10 minutes: show the program model and let it run

(So prepare a short instance that runs)

→ Set up a doodle for the schedule.