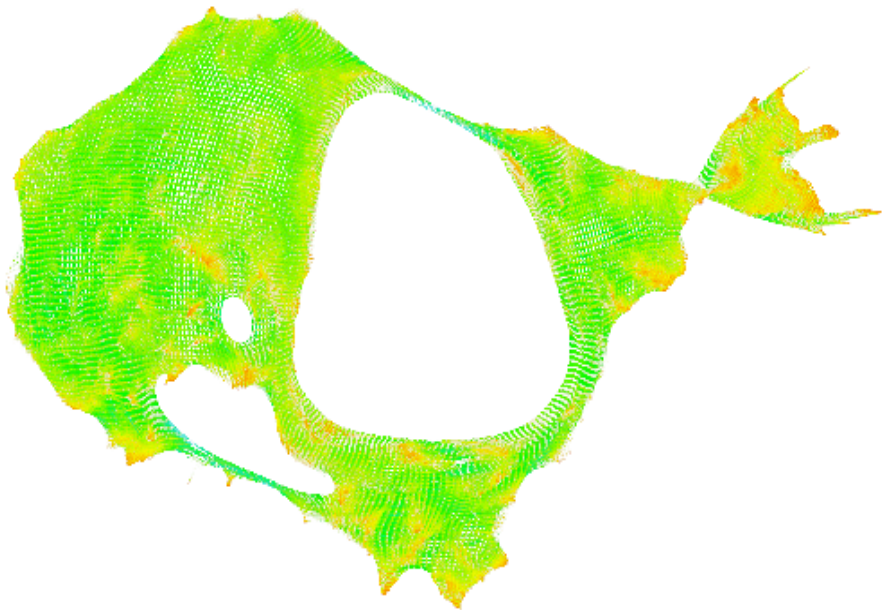


Heuristic Worst Case

- ▶ $\sim 20\%$ deviation in worst case graph
→ fe_ocean
- ▶ Actual VC size: 71724
- ▶ Heuristic VC size: 87520



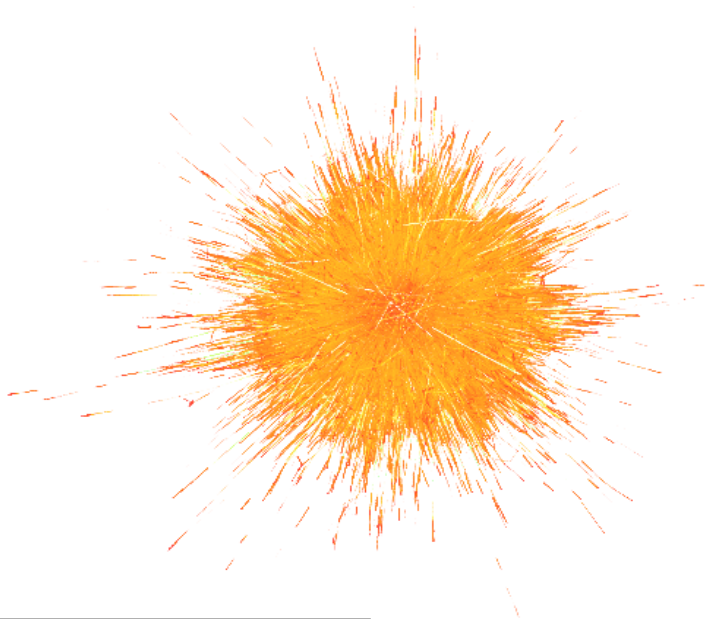
DIMACS10@fe_ocean 143437 Vertices, 409593 Edges

Degree	Vertices
1	38
2	456
3	2656
4	6217
5	19020
6	115050

- ▶ mostly degree 6 vertices
- ▶ low amount of degree 1 and 2 vertices

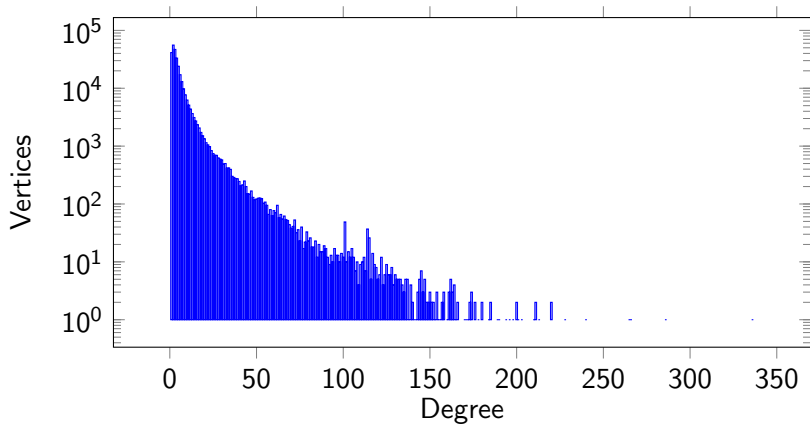
Heuristic Good Case

- ▶ Graph we perform well on
→ coAuthorsDBLP
- ▶ Actual VC size: 155618
- ▶ Heuristic VC size: 155620



DIMACS10@coAuthorsDBLP 299067 Vertices, 977676 Edges

coAuthorsDBLP



Conclusion - Heuristic

- ▶ missing good heuristics for local structures
- ▶ too cautious with "heavy" reductions

- ▶ Solve MVC via reduction to ILP.
- ▶ Used CPLEX

- ▶ Solve MVC via reduction to ILP.
- ▶ Used CPLEX

Comparison

