

# Bachelorarbeit

Eine experimentelle Evaluation von theoretisch fundierten  
Graphpartitionierungsalgorithmen

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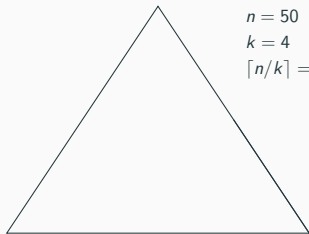
# Das Problem



# Ein Bikriterieller Algorithmus

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# Zerlegung in Zusammenhangskomponenten

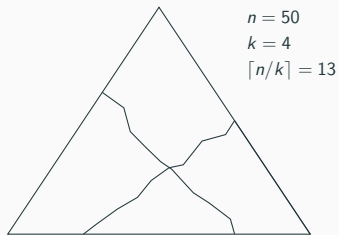


$$n = 50$$

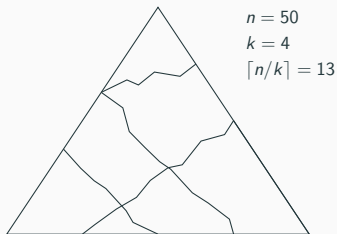
$$k = 4$$

$$\lceil n/k \rceil = 13$$

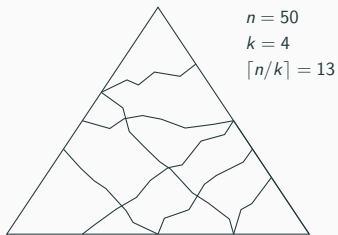
# Zerlegung in Zusammenhangskomponenten



# Zerlegung in Zusammenhangskomponenten

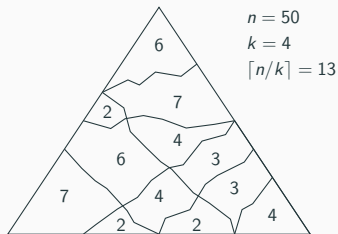


# Zerlegung in Zusammenhangskomponenten

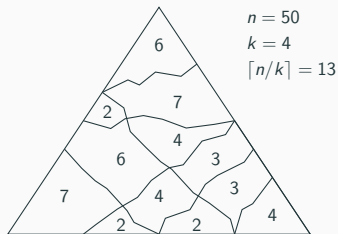




# Zerlegung in Zusammenhangskomponenten

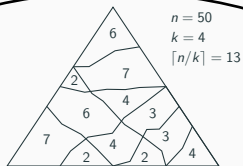


# Zerlegung in Zusammenhangskomponenten

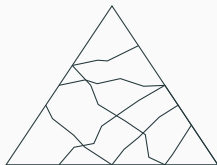
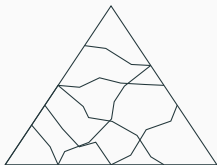


| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|
| 0 | 3 | 2 | 3 | 0 | 2 | 2 | 0 | 0 | 0  | 0  | 0  | 0  |

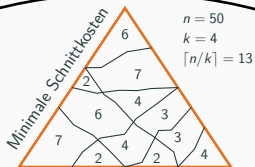
# Berechnung der Repräsentanten



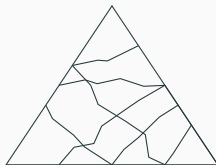
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|---|---|---|---|---|---|---|---|---|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 0 | 3 | 2 | 3 | 0 | 2 | 2 | 0 | 0 | 0  | 0  | 0  | 0  |



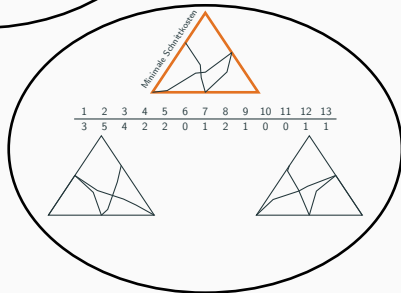
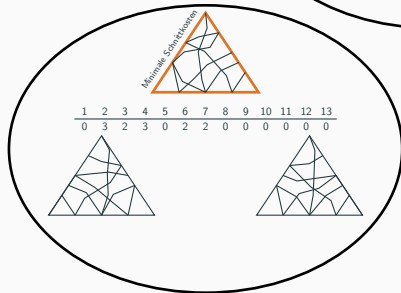
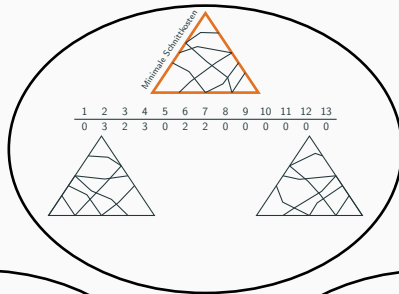
# Berechnung der Repräsentanten



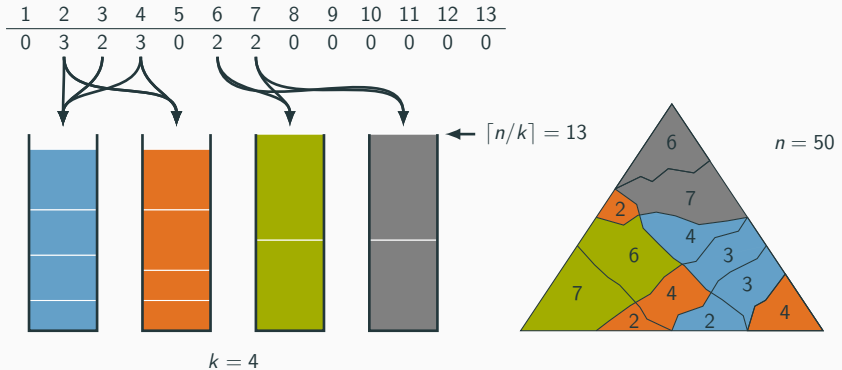
|   |   |   |   |   |   |   |   |   |    |    |    |    |
|---|---|---|---|---|---|---|---|---|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 0 | 3 | 2 | 3 | 0 | 2 | 2 | 0 | 0 | 0  | 0  | 0  | 0  |



# Unterteilung in Äquivalenzklassen



# Packen der Zusammenhangskomponenten



# Experimentelle Evaluation

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