

ale-cci

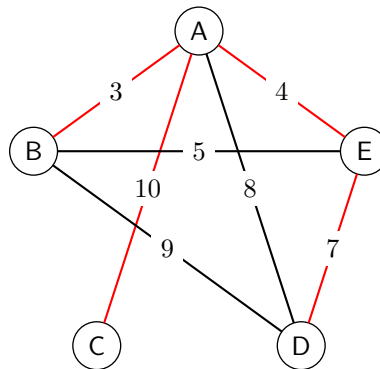
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# Modelli Algoritmi per il Supporto alle Decisioni

March 30, 2020

# Minimum Spanning Tree

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## Algoritmo

```
import utils

graph = [(10, 'A', 'C'),
         (8, 'A', 'D'),
         (7, 'D', 'E'),
         (4, 'A', 'E'),
         (3, 'B', 'A'),
         (9, 'B', 'D'),
         (5, 'B', 'E')]
N = utils.vertices_of(graph)

connected = set()
mst = []

edges = sorted(graph)

for edge in edges:
    weight, lhs, rhs = edge

    # Two nodes already connected
    if lhs in connected and rhs in connected:
        continue

    mst.append(edge)
    connected.update({lhs, rhs})

    if len(mst) == N:
        break
print(mst)
```

## Analisi complessità

pass

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