

Description of Experiments

1 Experiment 1 - Random

Setup

```
[ ]: n_nodes = 100
      n_tries = 5

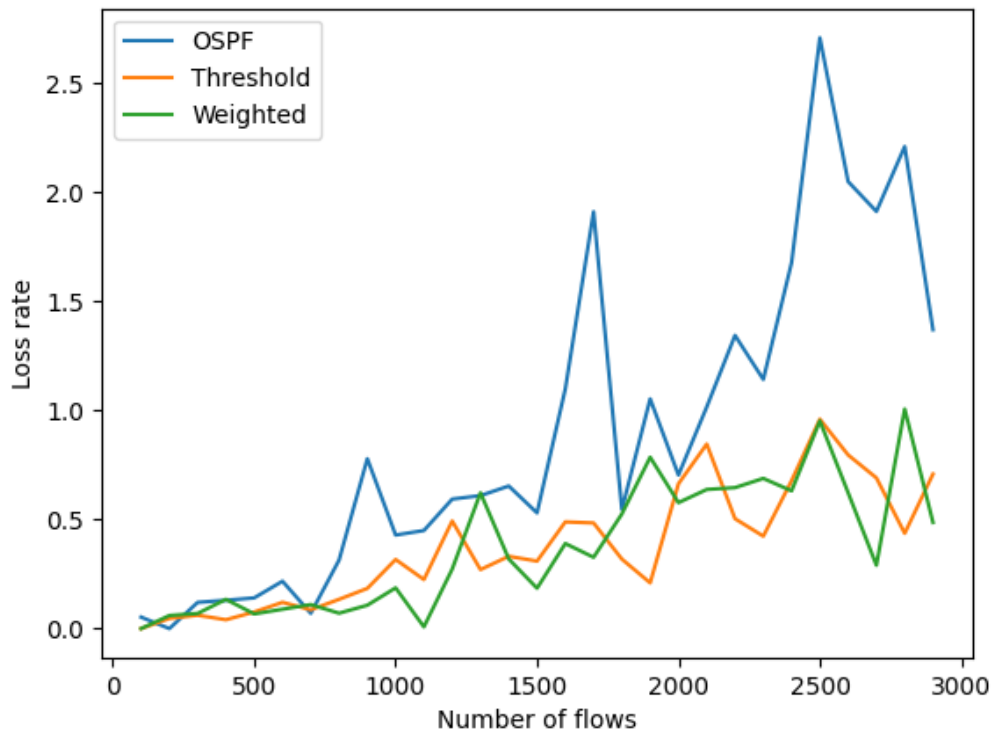
      # Topology parameters
      topology = 'random'
      domain_name = 'A'
      pce_node = 2
      max_int = 8
      max_links_out = 6

      # Algorithm parameters
      algs = ['OSPF', 'Weighted', 'Threshold']
      threshold_params={
          threshold: [0,0.3,0.5,0.8,1],
          mult_fact: [1,5,10,100,1000]
      }

      # Flow generation parameters
      src_domain = 'A'
      dst_domain = 'A'
      mode="rate_set_prob"
      rate_set=[6.4, 5, 50]
      rate_prob_dstr=[0.4, 0.3, 0.3]
      seed=time.time

      # Link capacity parameters
      link_cap_mode="prob_cap_set"
      cap_set=[40, 150, 1000, 10000]
      prob_cap_set=[0.2, 0.3, 0.2, 0.3]
```

Plot This graphic shows the absolute loss rate and the number of flows increasing from 100 to 3000.



2 Experiment 2 - Small World

Setup

```
[ ]: n_nodes = 100
n_tries = 5

# Topology parameters
topology = 'Small_World'
domain_name = 'A'
pce_node = 2
k = 4
beta = 0.1
seed = 0

# Algorithm parameters
algs = ['OSPF', 'Weighted', 'Threshold']
threshold_params={
    threshold: [0,0.3,0.5,0.8,1],
    mult_fact: [1,5,10,100,1000]
}

# Flow generation parameters
```

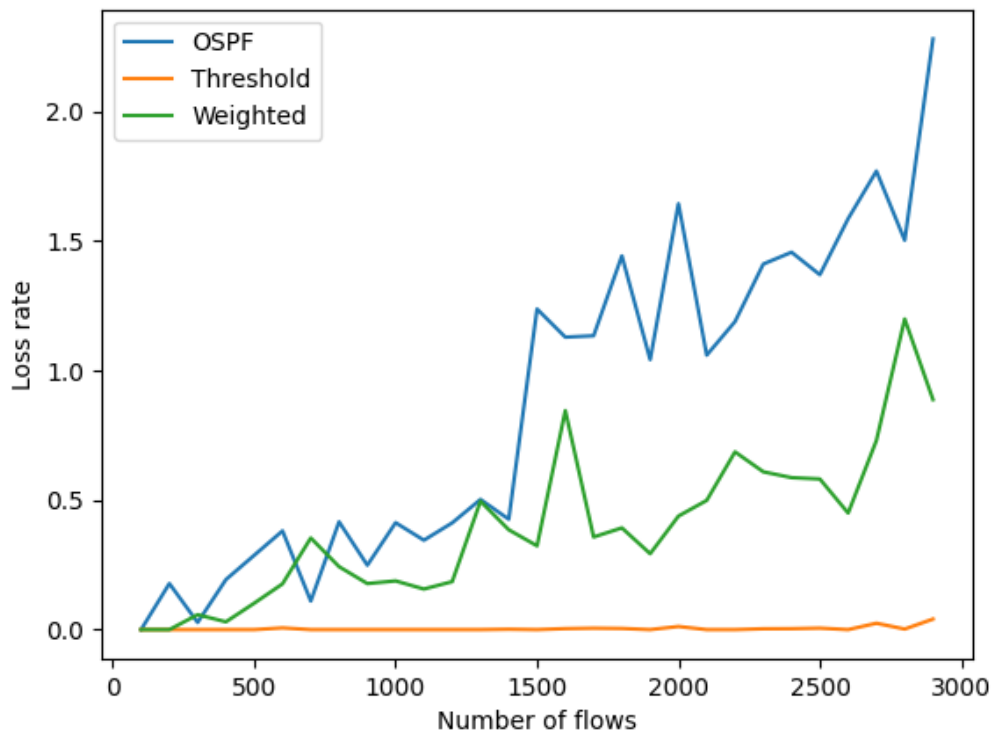
```

src_domain = 'A'
dst_domain = 'A'
mode="rate_set_prob"
rate_set=[6.4, 5, 50]
rate_prob_dstr=[0.4, 0.3, 0.3]
seed=time.time

# Link capacity parameters
link_cap_mode="prob_cap_set"
cap_set=[40, 150, 1000, 10000]
prob_cap_set=[0.2, 0.3, 0.2, 0.3]

```

Plot This graphic shows the absolute loss rate and the number of flows increasing from 100 to 3000.



3 Experiment 3 - Random

Setup

```
[ ]: n_nodes = 100
n_tries = 5

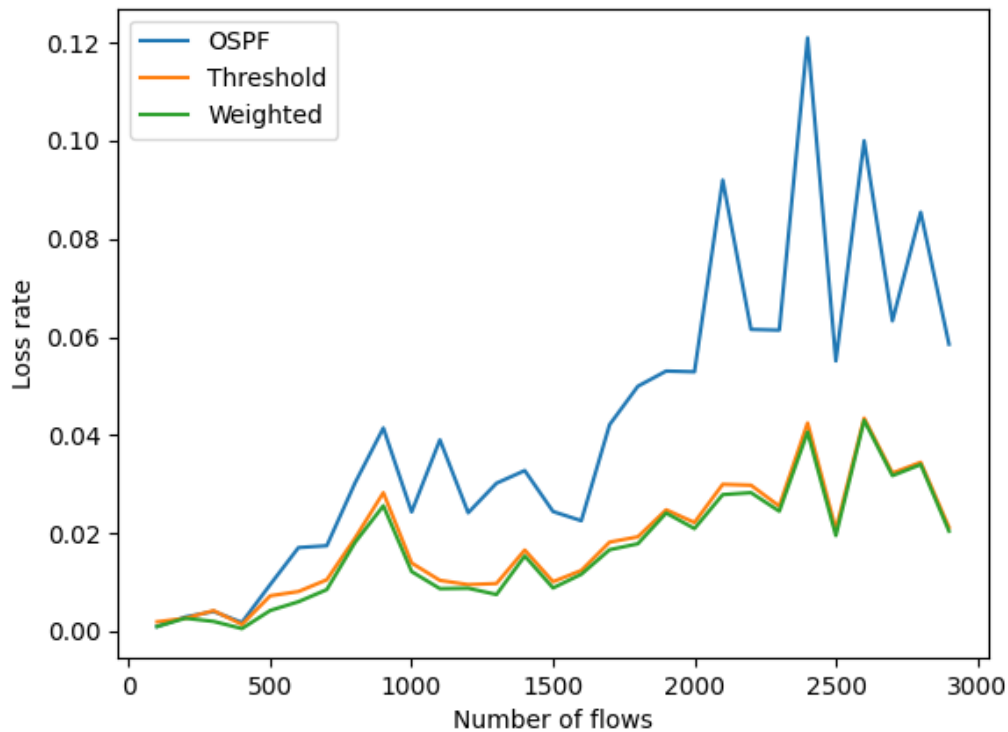
# Topology parameters
topology = 'random'
domain_name = 'A'
pce_node = 2
max_int = 8
max_links_out = 6

# Algorithm parameters
algs = ['OSPF', 'Weighted', 'Threshold']
threshold_params={
    threshold: [0,0.3,0.5,0.8,1],
    mult_fact: [1,5,10,100,1000]
}

# Flow generation parameters
src_domain = 'A'
dst_domain = 'A'
mode="rate_set_prob"
rate_set=[6.4, 5, 50]
rate_prob_dstr=[0.4, 0.3, 0.3]
seed=666666

# Link capacity parameters
link_cap_mode="prob_cap_set"
cap_set=[40, 150, 1000, 10000]
prob_cap_set=[0.2, 0.3, 0.2, 0.3]
```

Plot This graphic shows the flow loss rate (flow loss divided by total flows) and the number of flows increasing from 100 to 3000.



4 Experiment 4 - Random OSPF - 10 nodes, 30 tries

Setup

```
[ ]: n_nodes = 10
      n_tries = 30

      # Topology parameters
      topology = 'random'
      domain_name = 'A'
      pce_node = 2
      max_int = 8
      max_links_out = 6

      # Algorithm parameters
      algs = ['OSPF']

      # Flow generation parameters
      src_domain = 'A'
      dst_domain = 'A'
      mode="rate_set_prob"
      rate_set=[6.4, 5, 50]
      rate_prob_dstr=[0.4, 0.3, 0.3]
```

```
seed=666666

# Link capacity parameters
link_cap_mode="prob_cap_set"
cap_set=[40, 150, 1000, 10000]
prob_cap_set=[0.2, 0.3, 0.2, 0.3]
```

Plot This graphic shows the flow loss rate (loss divided by total flows) and the number of flows increasing from 10 to 300.

