

# SIR Model simple

November 21, 2024

```
[15]: t = 0
S = 45400
I = 2100
R = 2500
deltat = 1
print ("t = " + str(t), "S = " + str(S), "I = " + str(I), "R = " + str(R))
for x in range(3):

    Sprime = -.00001 * S * I
    Iprime = .00001 * S * I - I/14
    Rprime = I/14
    deltaS = Sprime * deltat
    deltaI = Iprime * deltat
    deltaR = Rprime * deltat
    t = t + deltat
    S = S + deltaS
    I = I + deltaI
    R = R + deltaR
    print ("t = " + str(t), "S = " + str(S), "I = " + str(I), "R = " + str(R))
```

```
t = 0 S = 45400 I = 2100 R = 2500
t = 1 S = 44446.6 I = 2903.4 R = 2650.0
t = 2 S = 43156.137415599995 I = 3986.4768701142857 R = 2857.385714285714
t = 3 S = 41435.72797949237 I = 5422.13795835661 R = 3142.1340621510203
```

```
[ ]:
```