- Introduction
- Mathematical model
- Results
- Discussion

Introduction

- The system is modeled as a set of ODEs

Mathematica

```
In[5]:= odes={y'[t]==y[t](1-y[t]/2.)}; icond={y[0]==0.5};
        model = Flatten[{odes,icond}]; Off[Solve::ifun];
        sol = DSolve[model,y[t],t]
```

$$\left\{\left\{y(t) \to \frac{2.2.71828^t}{3. + 2.71828^t}\right\}\right\}$$

```
In[7]:= SetDirectory["/home/student/courses/MATH564/project"];
        Export["Fig01.png",Plot[y[t] /. sol[[1,1]],{t,0,3}]]
```

Fig01.png

```
In[8]:=
```

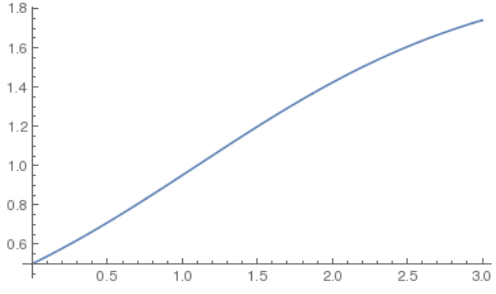

Figure 1. Model solution

Results

Discussion