Assignment 5

The Lorenz Attractor

**A picture containing screenshot

Description automatically generatedsigma = 10;**

**beta = 8/3;**

**p = 28;**

**x = rand\*20-10;**

**y = rand\*20-10;**

**z = rand\*20-10;**

**for t = 1:5000**

**x1 = sigma\*(y-x)\*.01**

**y1 = (x\*(p-z)-y)\*.01;**

**z1 = (x\*y-(beta)\*z)\*.01;**

**x = x + x1;**

**y = y + y1;**

**z = z + z1;**

**allx(t) = x;**

**ally(t) = y;**

**allz(t) = z;**

**end**

**plot3(allx,ally, allz);**

**title('My Lorenz attractor');**