function [] = FractalTree(x,y,len,a,M)

col='k';

if M==0

return;

end

if M==1

col='g';

end

a1=cloud(0,2,0.1);

a2=cloud(0,2,0.1);

s1=cloud(1,0.1,0.2);

s2=cloud(1,0.1,0.2);

[x1,y1]=calculate(x,y,a,len);

hold on;

line([x,x1],[y,y1],'Color',col);

FractalTree(x1,y1,len\*s1,a+a1,M-1);

FractalTree(x1,y1,len\*s2,a+a2,M-1);

End

function [x1,y1] = calculate(x,y,a,len)

x1=x+len\*cosd(a);

y1=y+len\*sind(a);

end

function res = cloud(Ex,Ep,He)

Epi=normrnd(Ep,He^2);

res=normrnd(Ex,Epi^2);

end

调用指令

FractalTree(0,0,10,50,10)

图像



