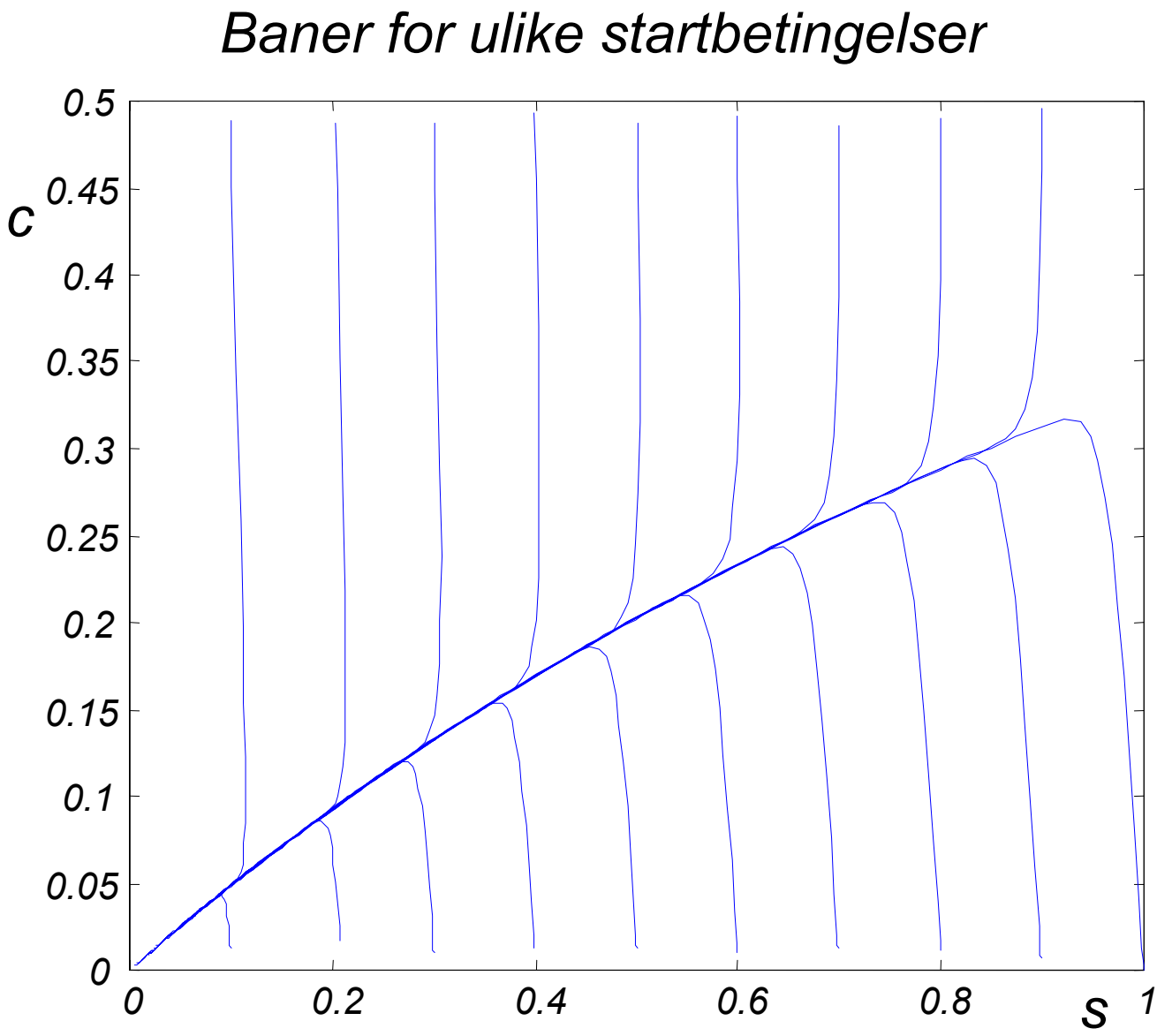
Løsning av ligningen vha. MATLAB:

1. Lag høyresiden:

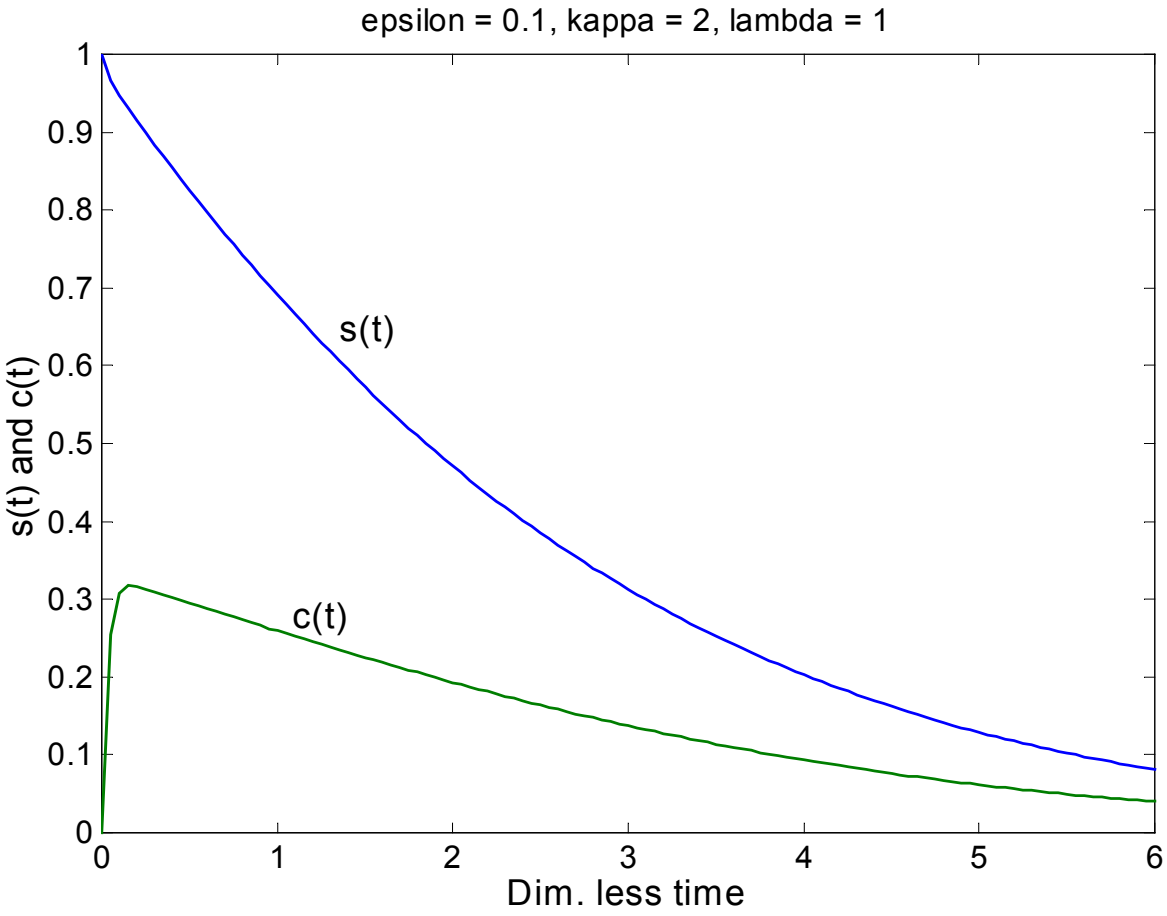
```
function xdot = kinetikk(t,x)
epsilon = .1 ;
kappa   =  2 ;
lambda  =  1 ;
xdot(1) = -x(1) + ( x(1) + kappa -lambda)*x(2);
xdot(2) =(x(1)-( x(1) + kappa )*x(2) )/epsilon;
xdot    = xdot';
```

2. Skriv program:

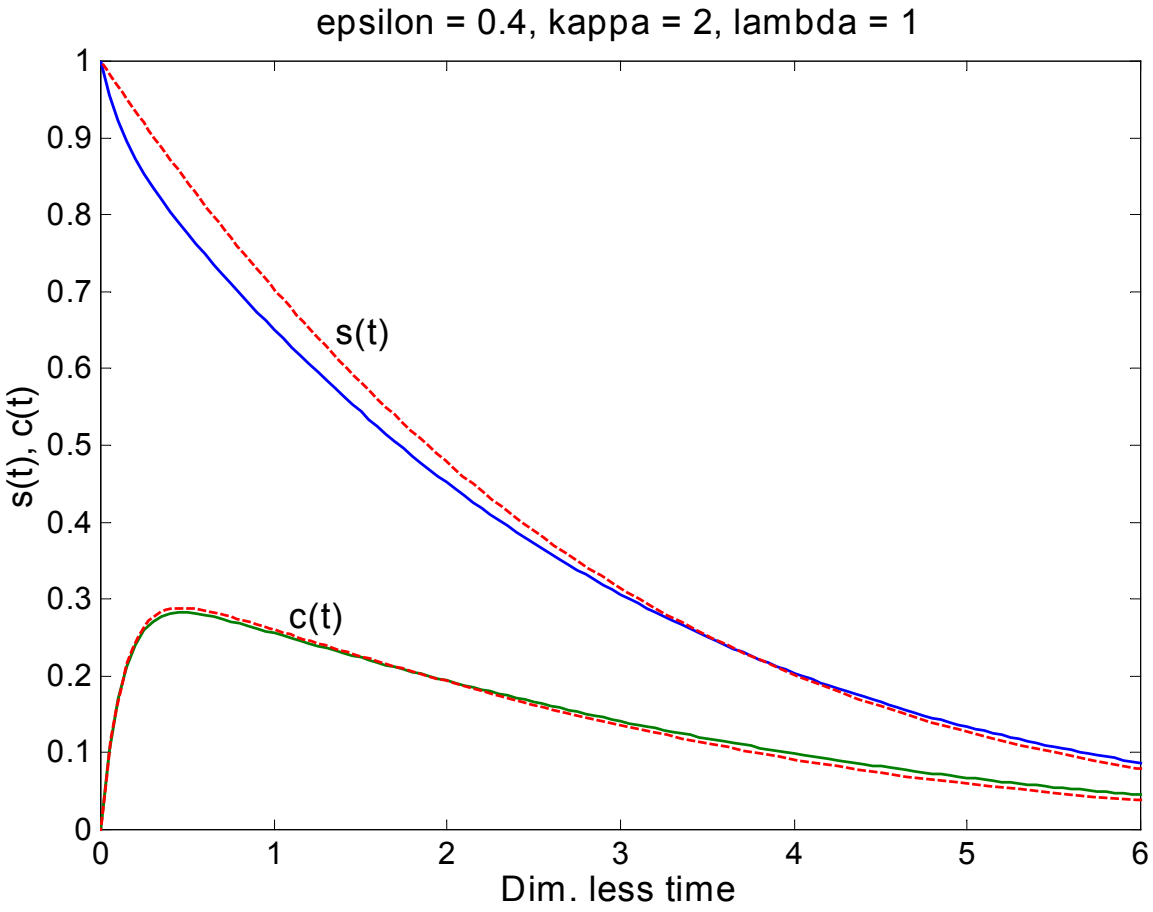
```
tspan = 0:.05:6;;
[x0] =  [1 0]';
[t,x]=ode23('kinetikk',tspan,x0);
plot( x(:,1) , x(:,2) );axis([0 1 0 .5]);
hold on;
for i = 1:20
  x0  = ginput(1);
  [t,x]=ode23('kinetikk',tspan,x0);
  plot( x(:,1) , x(:,2) );
end;
```


Baner for ulike startbetingelser
c
s
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0
0.2
0.4
0.6
0.8
1

Tidshistorier



"Eksakt numerisk" og uniform løsning til 1. orden.



Beregning av uniform løsning:

```
epsilon = 0.4;
lambda = 1;
kappa  = 2;
ss0 = 0.02:.01:1;
ts0 = (1 - ss0 - kappa*log(ss0) )/lambda;
c0 = ss0./(ss0+kappa*ones(size(ts0))) ...
-( 1/(1+kappa))*exp(-(1+kappa)*ts0/epsilon);
```