
This function takes three inputs

```
function f = siroutput_fullfun(x,t)

% Here is a suggested framework for x.  However, you are free to deviate
% from this if you wish.

% set up transmission constants
k_infections = x(1);
k_fatality = x(2);
k_recover = x(3);

k_still_s = 1 - k_infections;
k_still_i = 1 - k_recover - k_fatality - 0.004;

% set up initial conditions
ic_susc = x(4);
ic_inf = x(5);
ic_rec = x(6);
ic_fatality = x(7);

% Set up SIRD within-population transmission matrix
% if recover can still get infected as covid did
% A = [k_still_s 0.004 0.01 0; k_infections k_still_i 0 0; 0 k_recover 0.99 0;
%       0 k_fatality 0 1];
A = [k_still_s 0.004 0 0; k_infections k_still_i 0 0; 0 k_recover 1 0; 0
     k_fatality 0 1];

% The next line creates a zero vector that will be used a few steps.
B = zeros(4,1);

% Set up the vector of initial conditions
x0 = [ic_susc, ic_inf, ic_rec, ic_fatality];

% Here is a compact way to simulate a linear dynamical system.
% Type 'help ss' and 'help lsim' to learn about how these functions work!!
sys_sir_base = ss(A,B,eye(4),zeros(4,1),1);
y = lsim(sys_sir_base,zeros(t,1),linspace(0,t-1,t),x0);

% return the output of the simulation
f = y;
end
```

Not enough input arguments.

Error in siroutput_full (line 9)
k_infections = x(1);

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