

Plots evolutionary game dynamics in an infinite, well-mixed population
Uses replicator-mutator dynamics

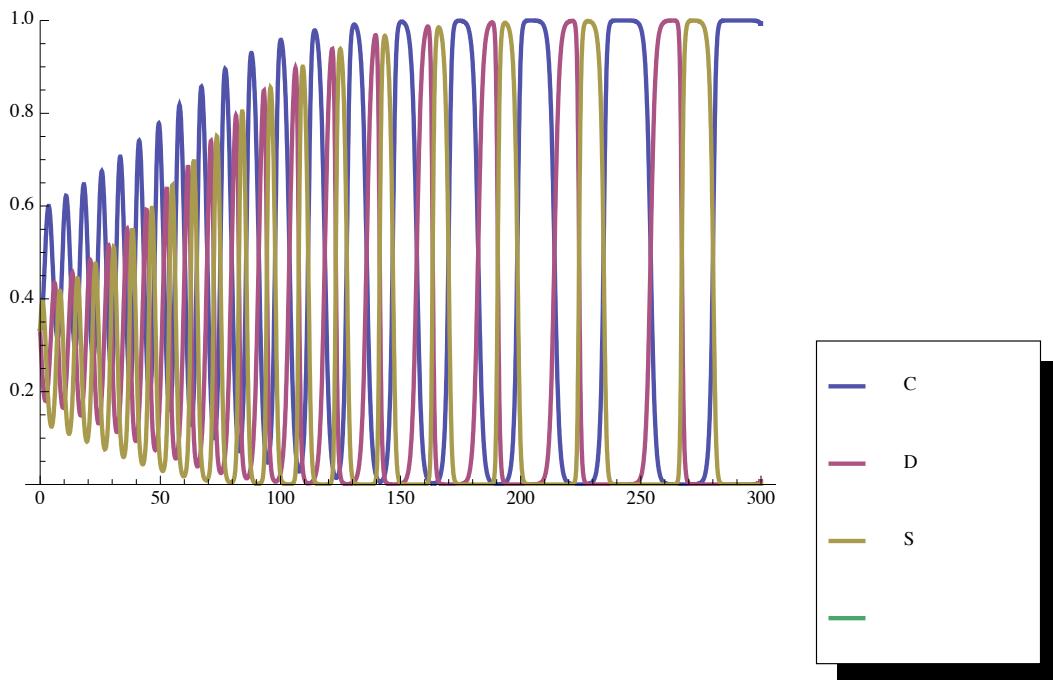
(c) 2009 Daniel Rosenbloom. Feel free to use, modify, and distribute with attribution.
www.danielrosenbloom.com

Run the **EvoGameTutorialMain** notebook before running this one.

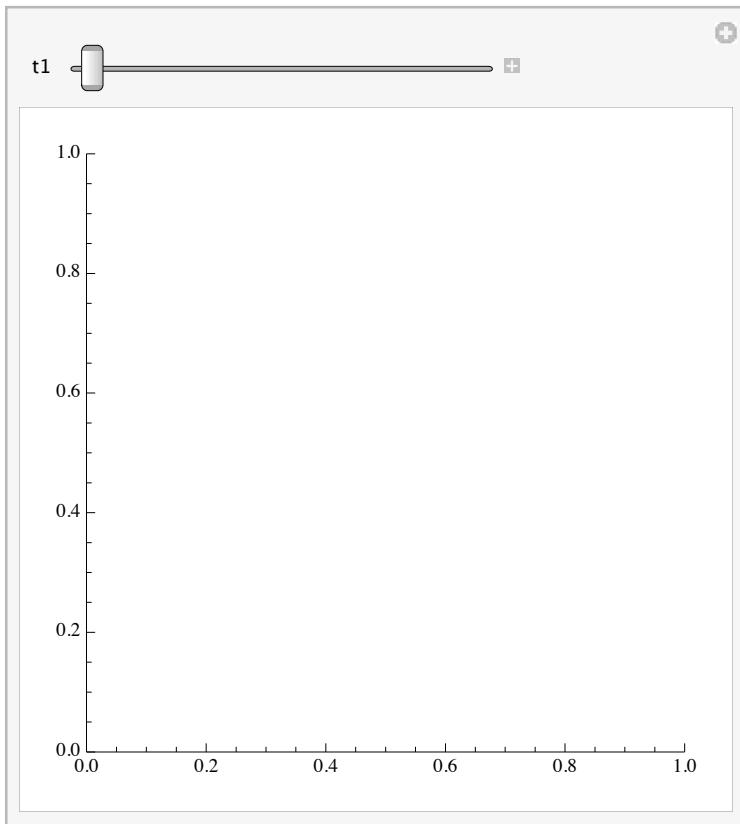
```
Needs["PlotLegends`"];
```

```
Plot[
 Evaluate[
 xvect /.
 soln[{u → 0.00, xinit → {1/3, 1/3, 1/3}}]
 ],
 {t, 0, 300},
 PlotRange → {0, 1},
 PlotLegend → {"C", "D", "S"}, LegendPosition → {1, -1},
 PlotStyle → Thick
]
```

NDSolve::ndsz:
At t == 389.1449452373241`, step size is effectively zero; singularity or stiff system suspected. >>



```
Manipulate[
 ParametricPlot[
 Evaluate[
 {xvect[[1]], xvect[[2]]} /. soln[{u → 0.00, xinit → {1/3, 1/3, 1/3}}]
 ],
 {t, 0, t1}, PlotRange → {0, 1},
 {t1, 10, 300}
]
```



```

NDSolve::ndsz:
At t == 389.1449452373241`, step size is effectively zero; singularity or stiff system suspected. >>
Part::partd : Part specification xvect[1] is longer than depth of object. >>
Part::partd : Part specification xvect[2] is longer than depth of object. >>
ReplaceAll::reps : {soln[{u → 0., xinit → {1/3, 1/3, 1/3}}]} is neither a list of
replacement rules nor a valid dispatch table, and so cannot be used for replacing. >>
Part::partd : Part specification xvect[1] is longer than depth of object. >>
General::stop : Further output of Part::partd will be suppressed during this calculation. >>
ReplaceAll::reps : {soln[{u → 0., xinit → {1/3, 1/3, 1/3}}]} is neither a list of
replacement rules nor a valid dispatch table, and so cannot be used for replacing. >>
ReplaceAll::reps :
{soln[{u → 0., xinit → {0.333333, 0.333333, 0.333333}}]} is neither a list of replacement rules
nor a valid dispatch table, and so cannot be used for replacing. >>
General::stop : Further output of ReplaceAll::reps will be suppressed during this calculation. >>

```

```
Plot[
 Evaluate[
 phi[xvect] /.
 soln[{u → 0.01, xinit → {0.1, 0.4, 0.5}}]
 ],
 {t, 0, 1000},
 PlotRange → {0, 2}]
```

