

Pattern Formation - Homework 3**Deadline: November 5, 6PM****(1) Brusselator (30pt)**

Consider the Brusselator reaction scheme studied in the lecture.

i) Repeat the calculations with all the details included.

ii) Assume that a homogeneous steady state has been reached and determine the stationary densities \bar{U} and \bar{V} of the reagents U and V. Show that, depending on the control parameters, regimes with $\bar{U} \ll \bar{V}$ and $\bar{U} \gg \bar{V}$ can be reached.