**Supplement to:**

**Extending the minimal model of metabolic oscillations in   
*Bacillus subtilis* biofilms**

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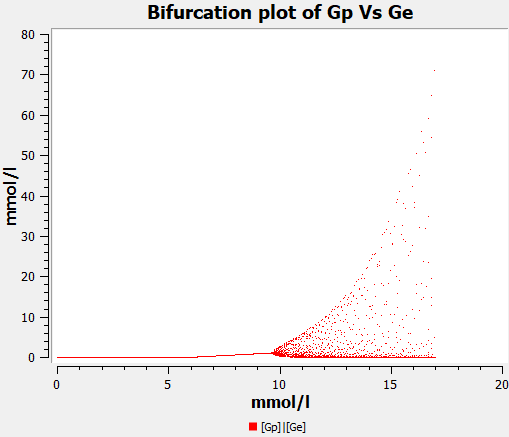
***Quasi-steady-state approximation non trivial steady state***

The Jacobian matrix for the NTSS reads:

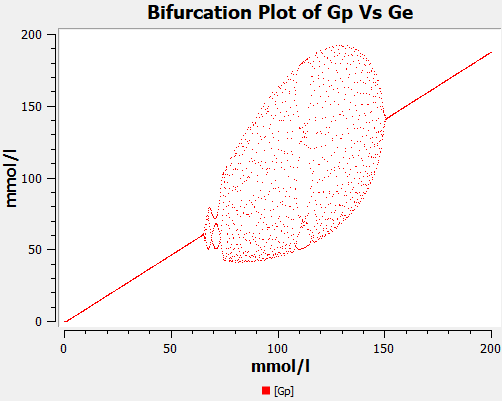
The eigenvalues are , where

for the NTSS:

(always positive , and )



**Figure S1:** Bifurcation plot of *Gp* versus *GE* (model s6ODE): The Hopf bifurcation occurs at about *GE* = 9.6 mmol/l, as opposed to 24.4 mmol/l for model BM or c6ODE.



**Figure S2:** Bifurcation plot of *Gp* versus *GE* (model R): Parameters: *k1* = 0.74 (mM\* h)-1, *k-1* = 0.074 (mM\* h)-1, *k2* = *k-2* = *k5* = *k-5* = *k2* = 2.3 h-1, *k3* = *k-3* = 4 h-1, *k2* = *k2* = 3 h-1. Only for this set of parameters, and when *k-1* is non zero, the bubble-like Hopf bifurcation can be observed, indicating that reversibility of reaction 1 is crucial for this kind of a bifurcation.