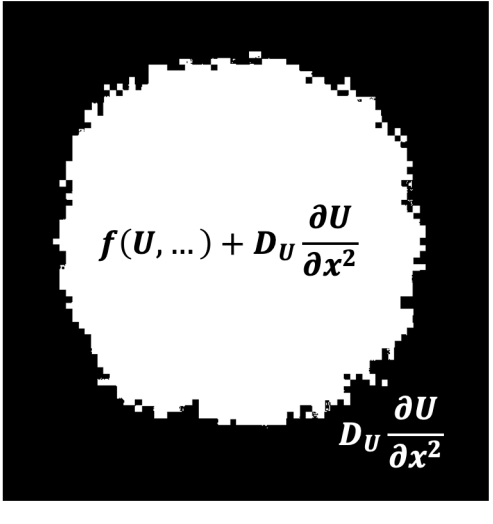
$$\frac{\partial U}{\partial t} = f(U, \dots) + D_U \frac{\partial U}{\partial x^2}$$

$f(U, \dots)$

- Basal production *(b)*
- Regulated production *(V, K)*
- Degradation *(μ)*



$$\frac{\partial U}{\partial t} = f(U, \dots) + D_U \frac{\partial U}{\partial x^2}$$

$f(U, \dots)$

- Basal production *(b)*
- Regulated production *(V, K)*
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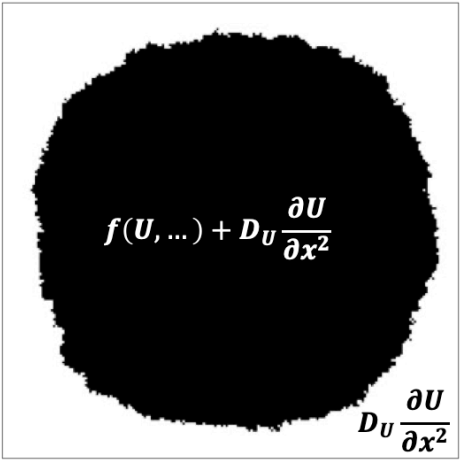
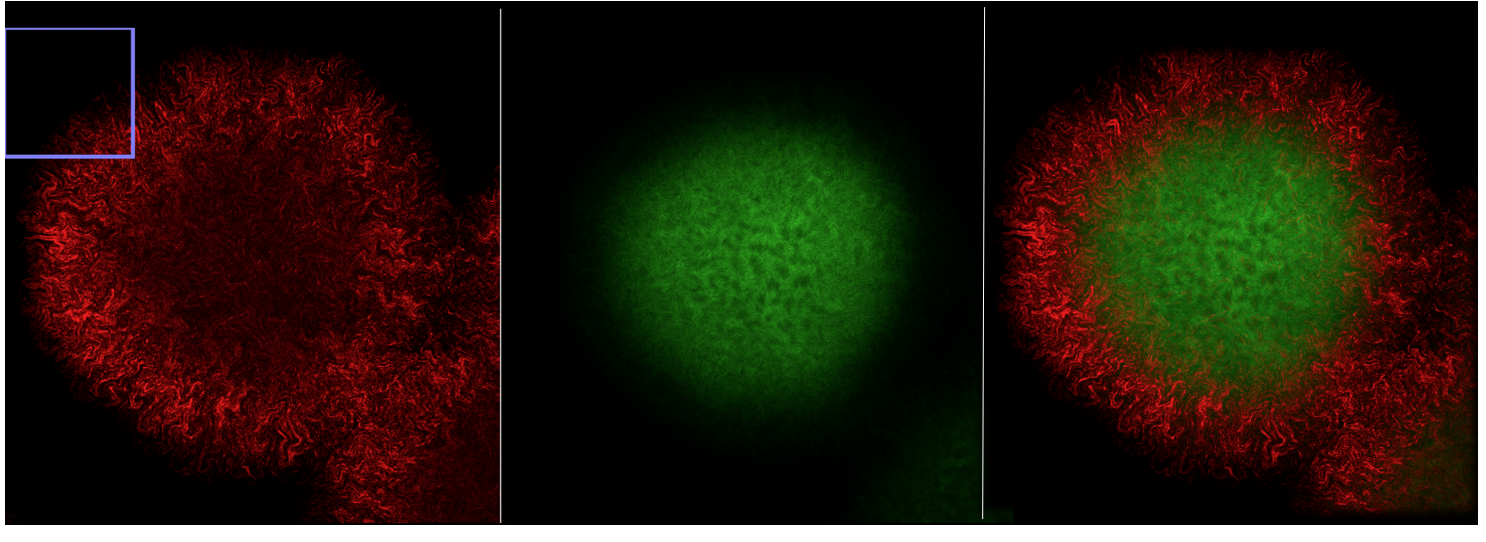
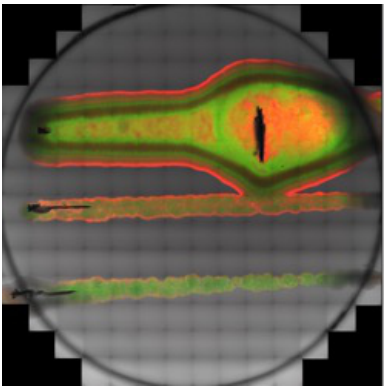
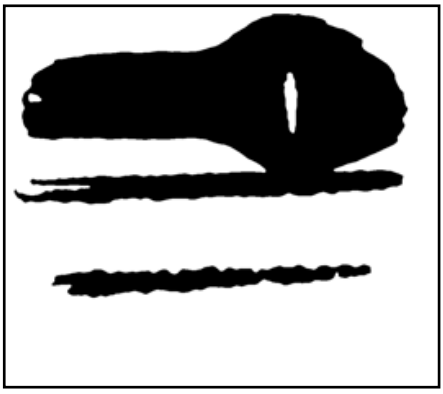



A) Red channel
B) Green channel
C) Superposed RG channels

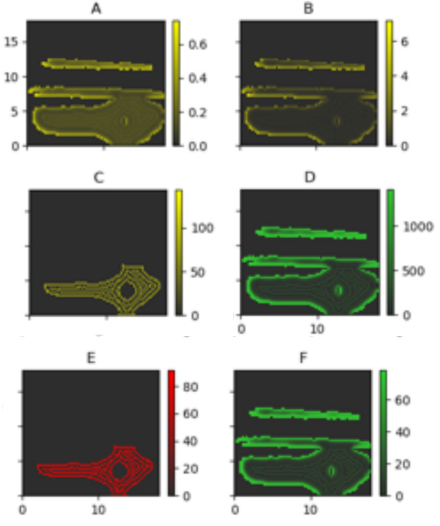
A) Confocal Microscopy



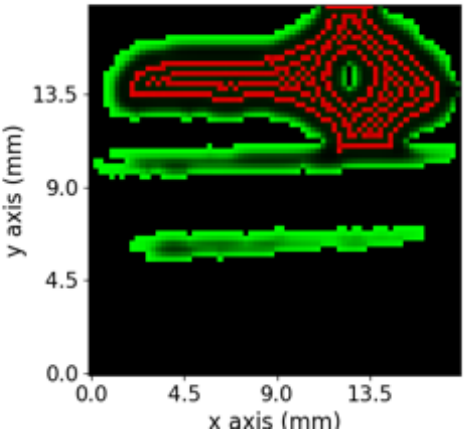
b) Boolean Shape Matrix

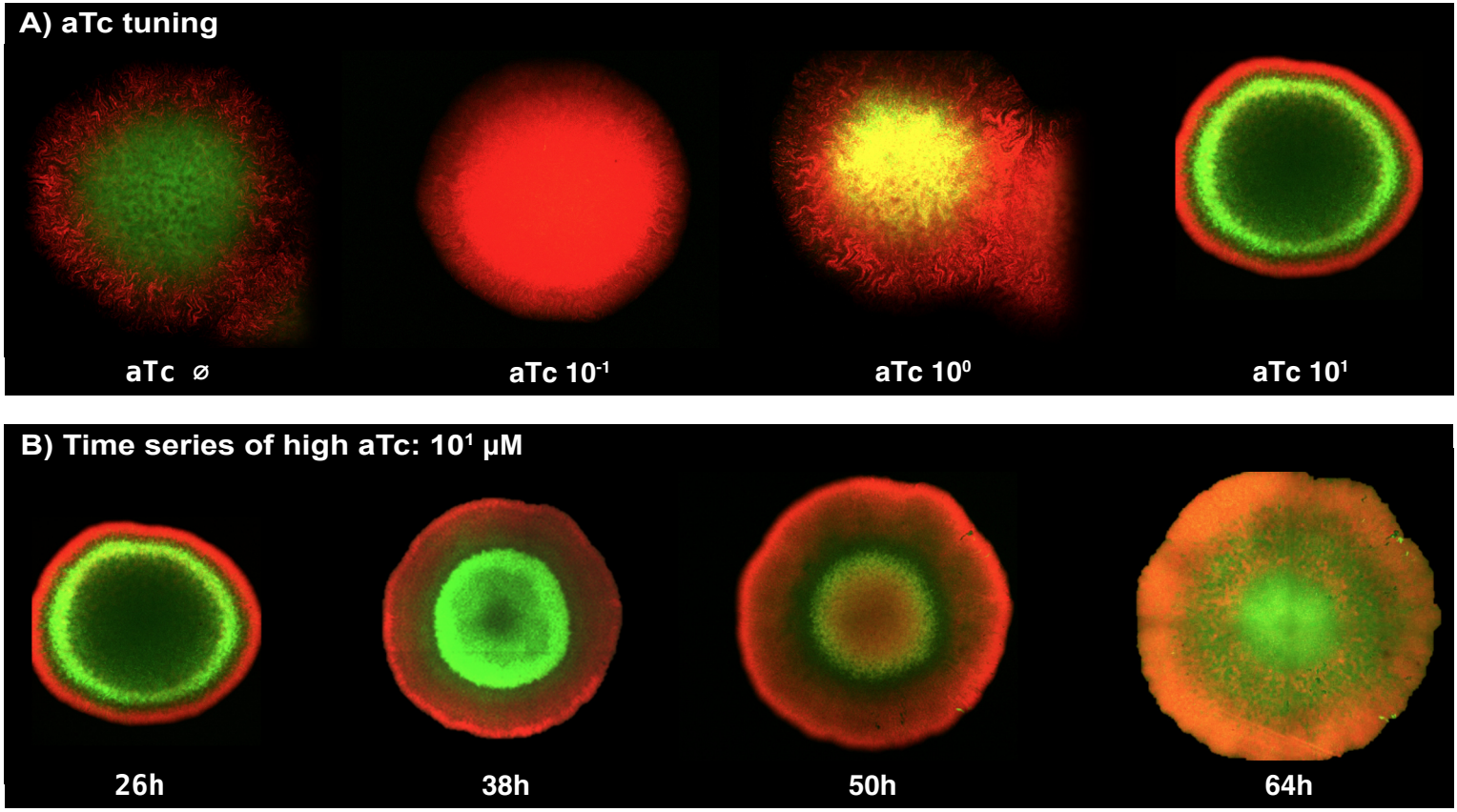


C) 6 species numerical solution

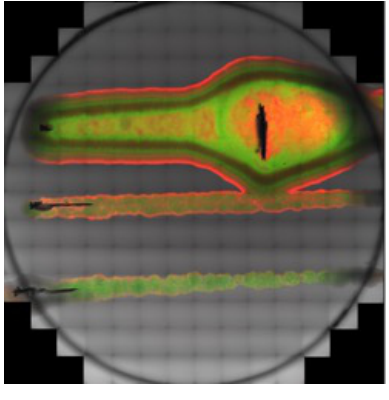


C) Red-Green superposed numerical solution

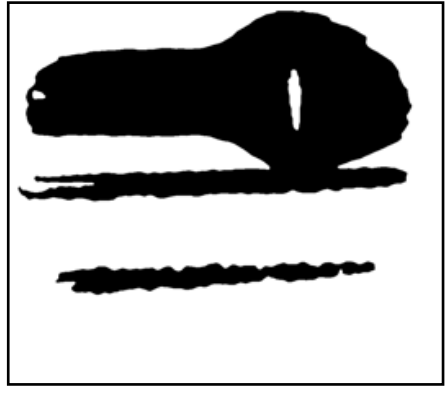



A) aTc tuning
aTc ⌀
aTc 10^{-1}
aTc 10^{0}
aTc 10^{1}
B) Time series of high aTc: 10^{1} µM
26h
38h
50h
64h

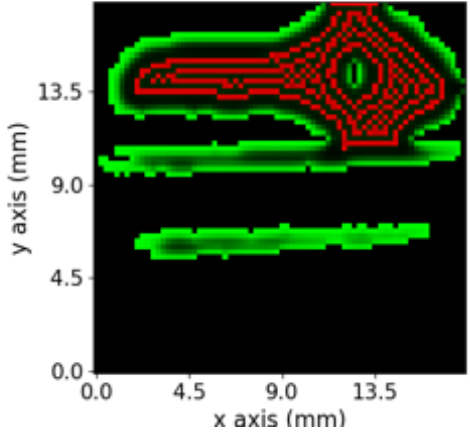
A) Confocal Microscopy

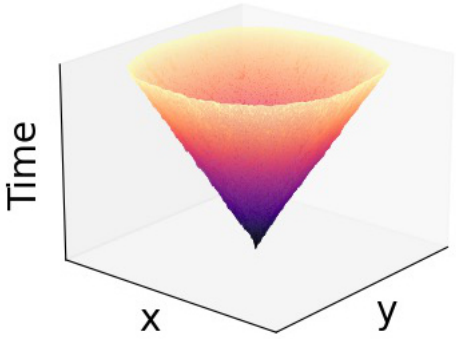


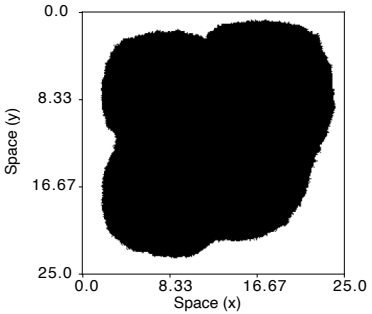
b) Shape Matrix

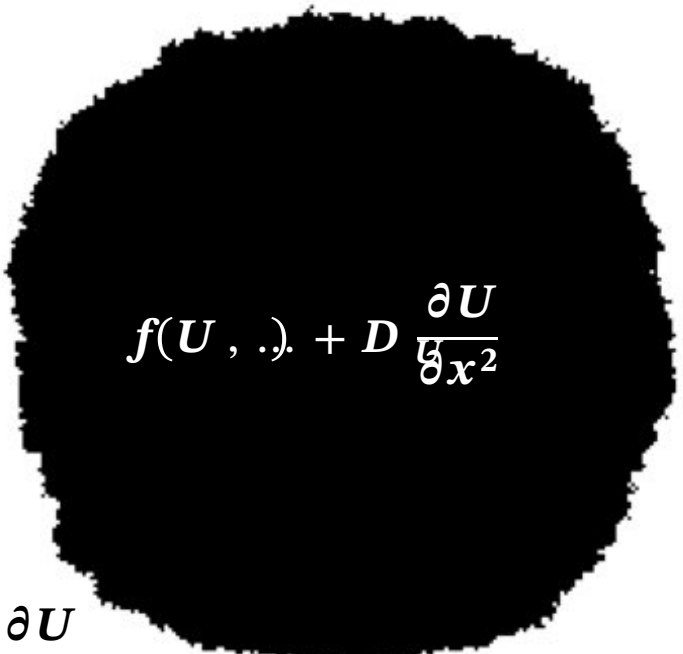


c) Numerical solution




Time
x
y


0.0
8.33
16.67
25.0
Space (y)
0.0
8.33
16.67
25.0
Space (x)


$f(U, ...) + D \frac{\partial U}{\partial x^2}$
$D \frac{\partial U}{}$