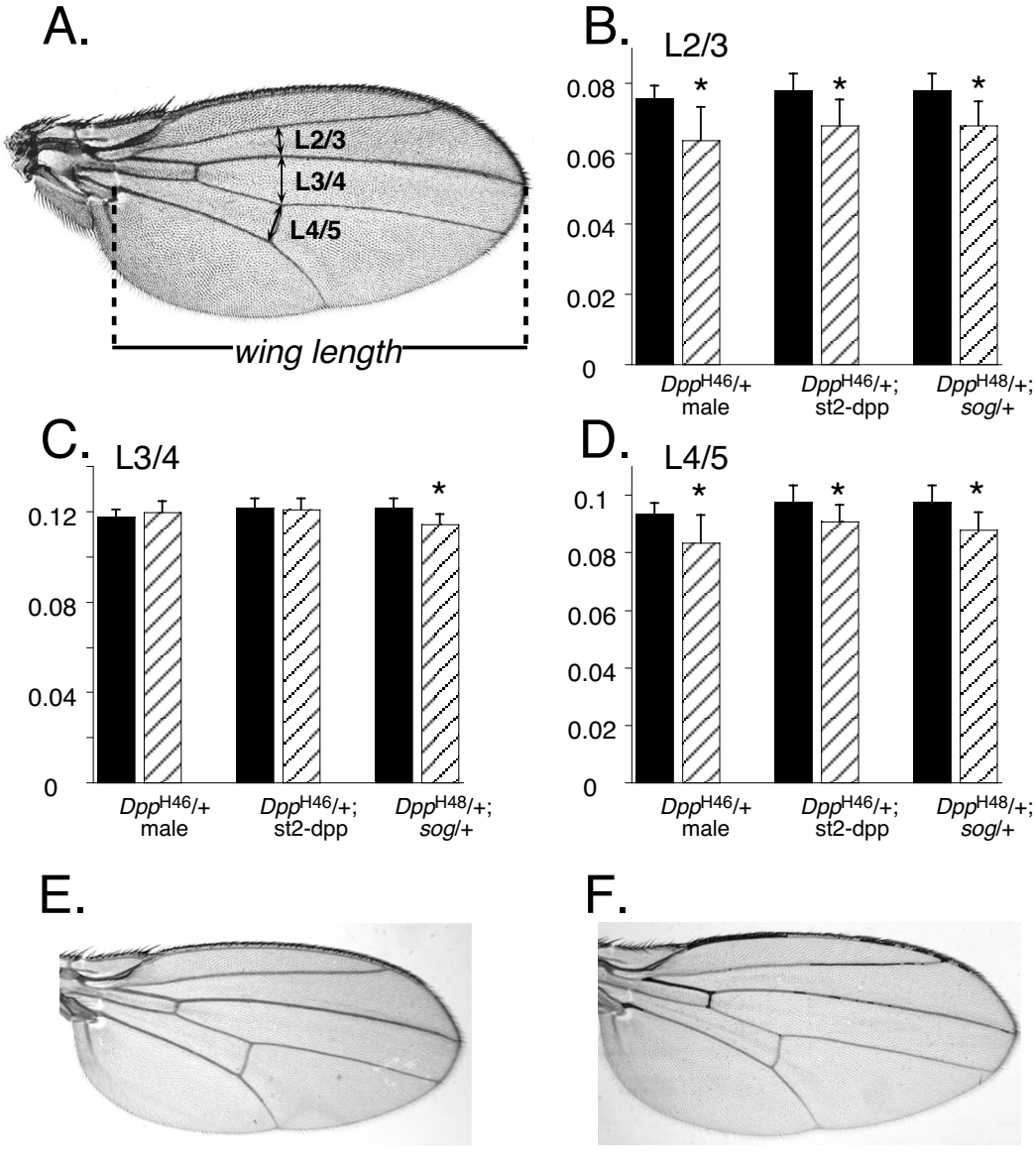
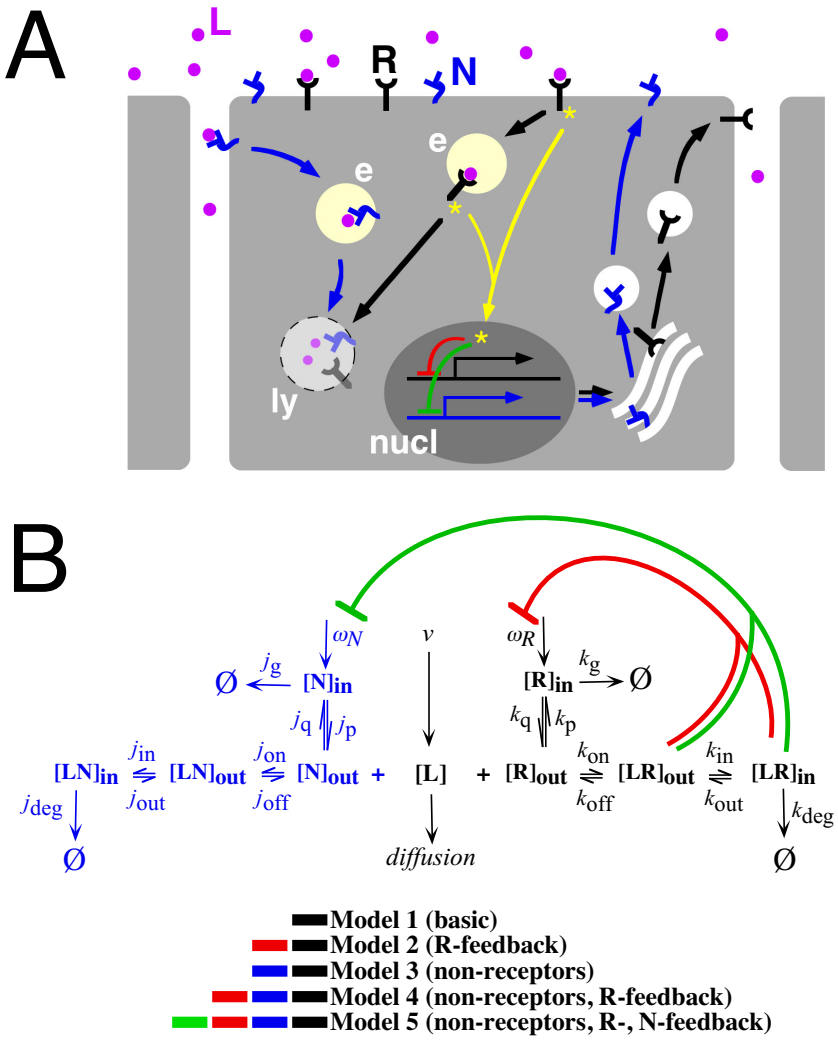
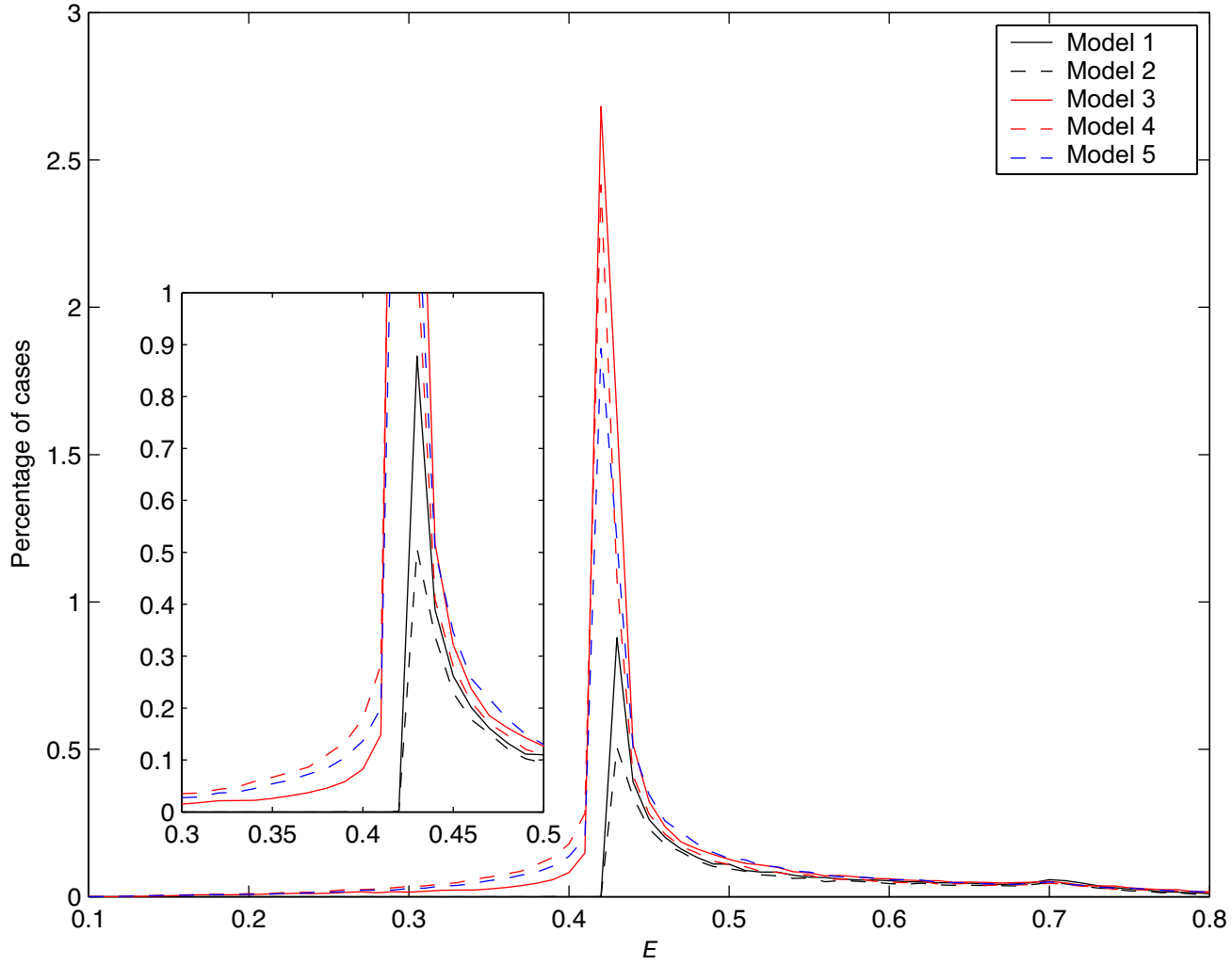
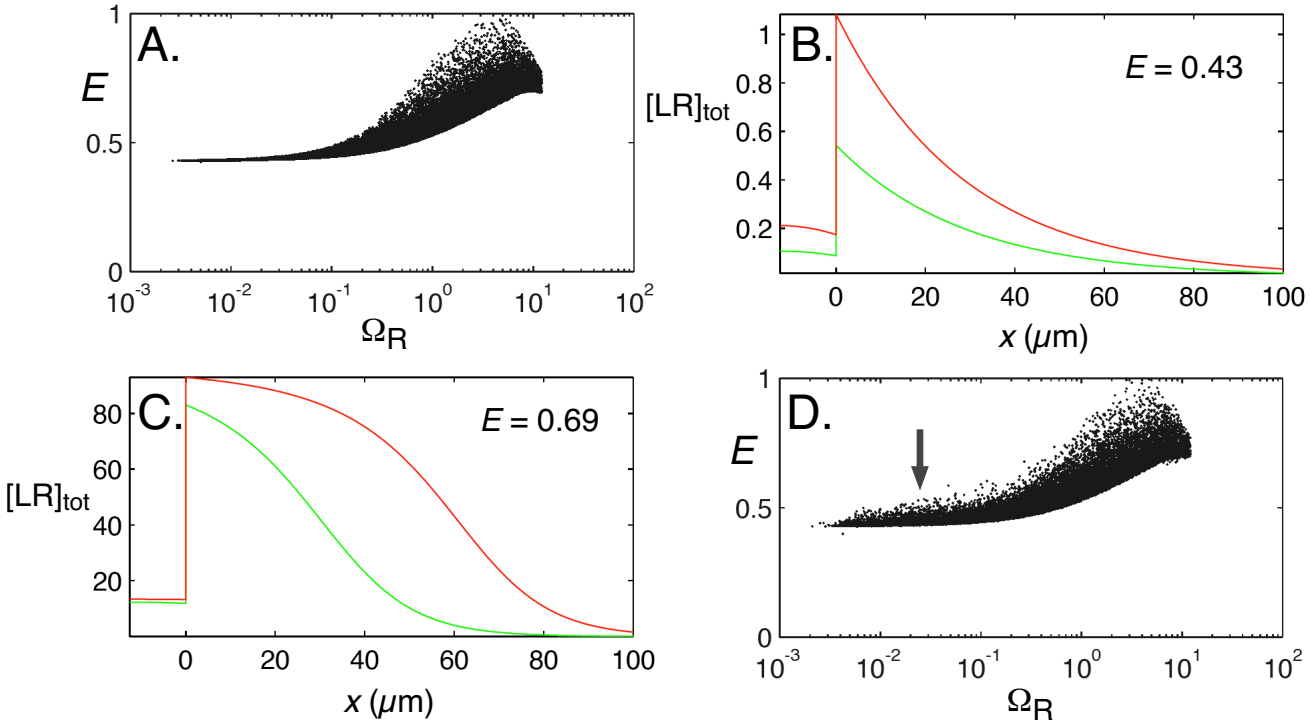
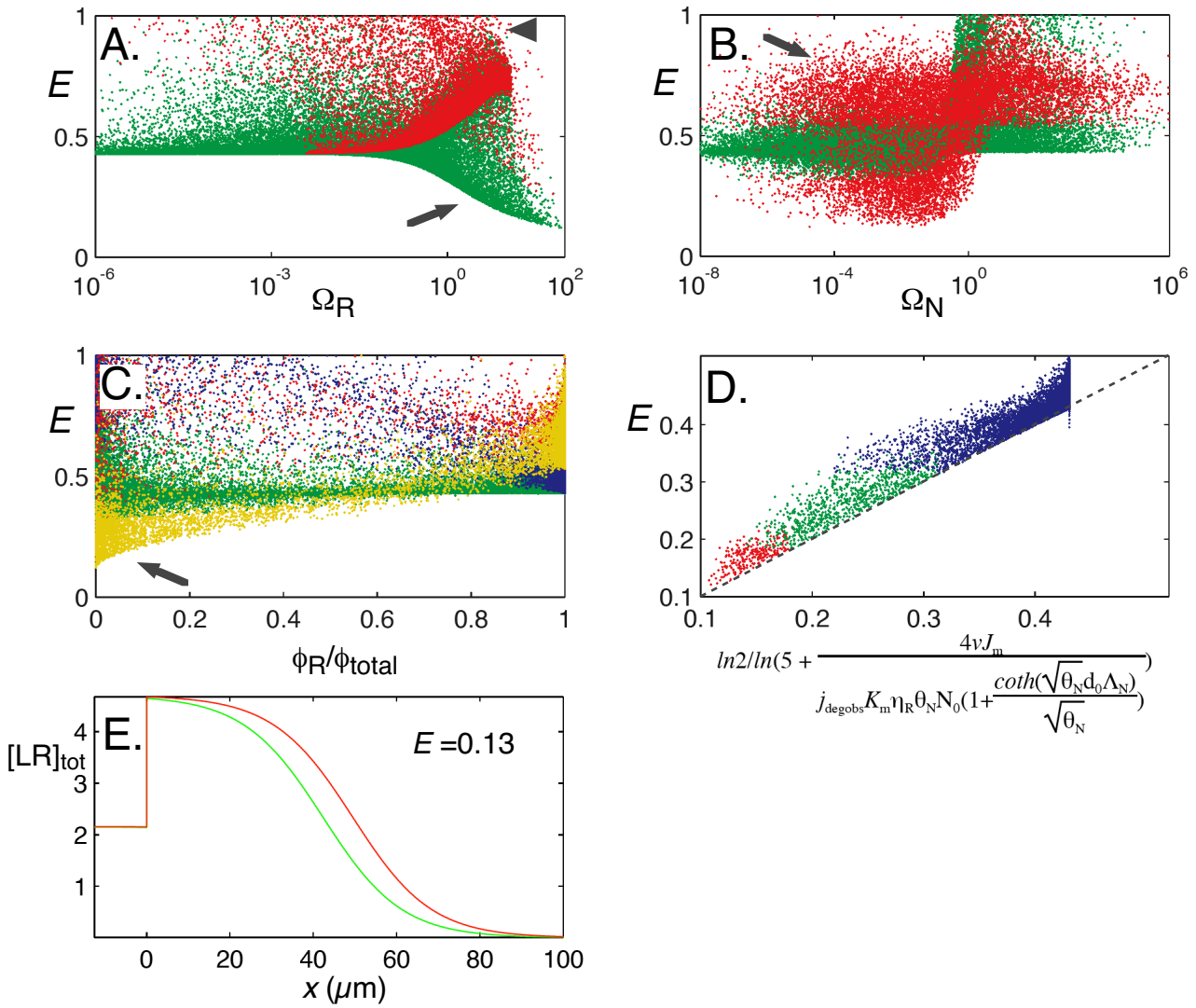
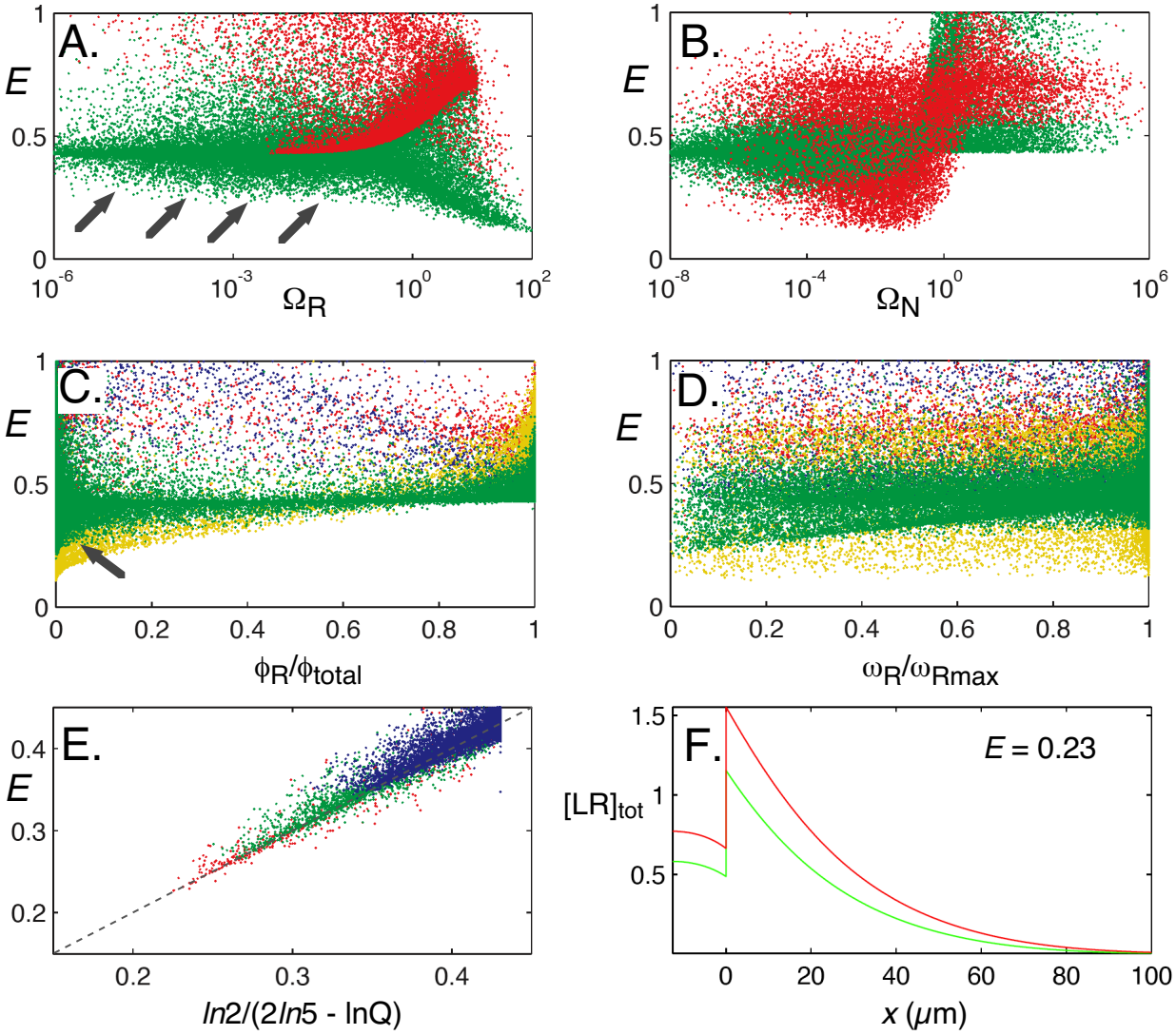

A.
L2/3
L3/4
L4/5
wing length
B.
L2/3
0.08
0.06
0.04
0.02
0
*
*
*
DppH46/+ male
DppH46/+; st2-dpp
DppH48/+; sog/+
C.
L3/4
0.12
0.08
0.04
0
*
DppH46/+ male
DppH46/+; st2-dpp
DppH48/+; sog/+
D.
L4/5
0.1
0.08
0.06
0.04
0.02
0
*
*
*
DppH46/+ male
DppH46/+; st2-dpp
DppH48/+; sog/+
E.
F.

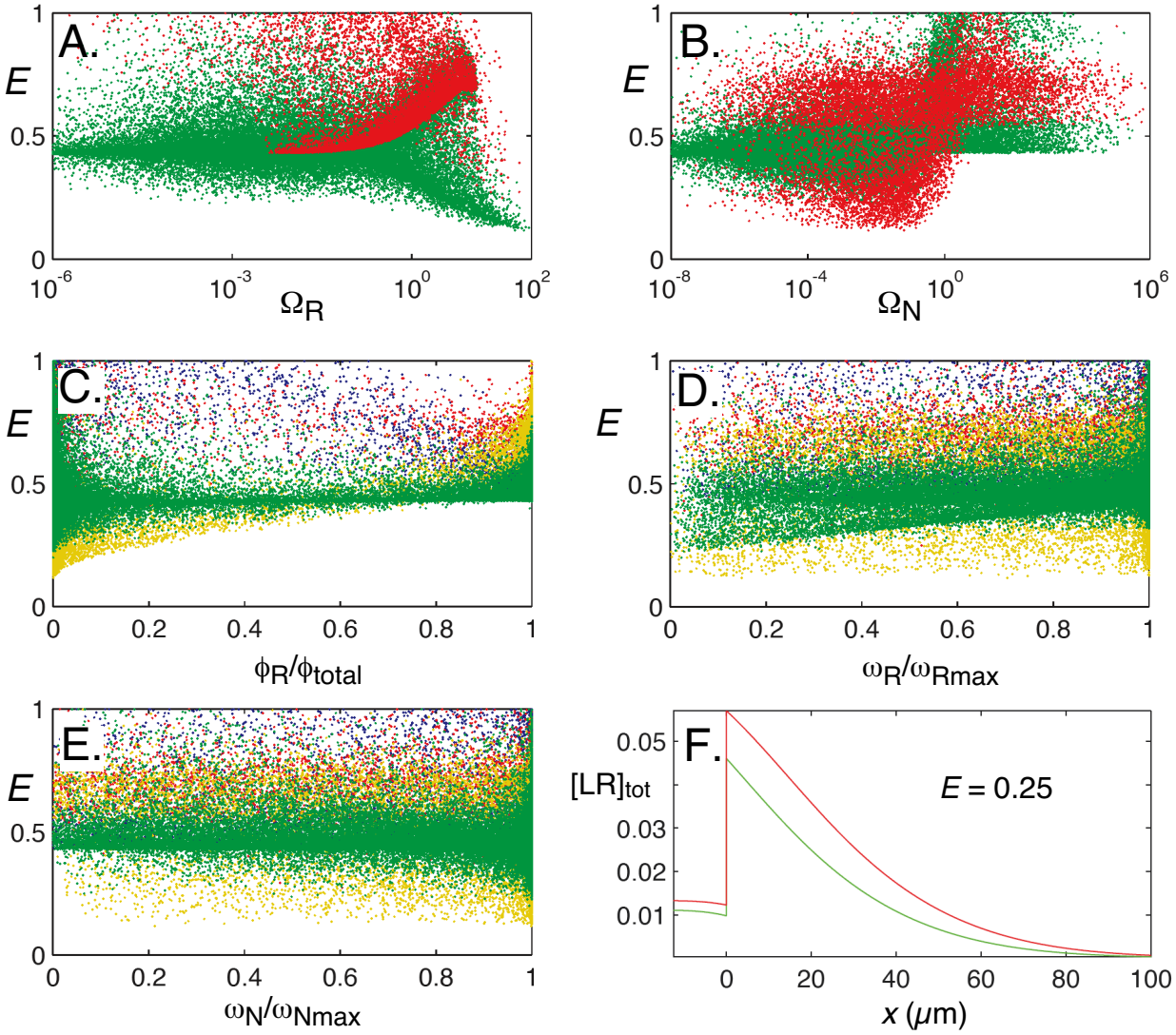

A
L
R
N
e
e
ly
nucl
B
ω_N
j_g
Ø
[N]in
j_q
j_p
ω_R
[R]in
k_g
Ø
k_q
k_p
v
j_{in}
j_{on}
[LN]in
[LN]out
[N]out
+
[L]
+
[R]out
k_{on}
[LR]out
k_{in}
[LR]in
j_{out}
j_{off}
k_{off}
k_{out}
j_{deg}
Ø
diffusion
k_{deg}
Ø
Model 1 (basic)
Model 2 (R-feedback)
Model 3 (non-receptors)
Model 4 (non-receptors, R-feedback)
Model 5 (non-receptors, R-, N-feedback)

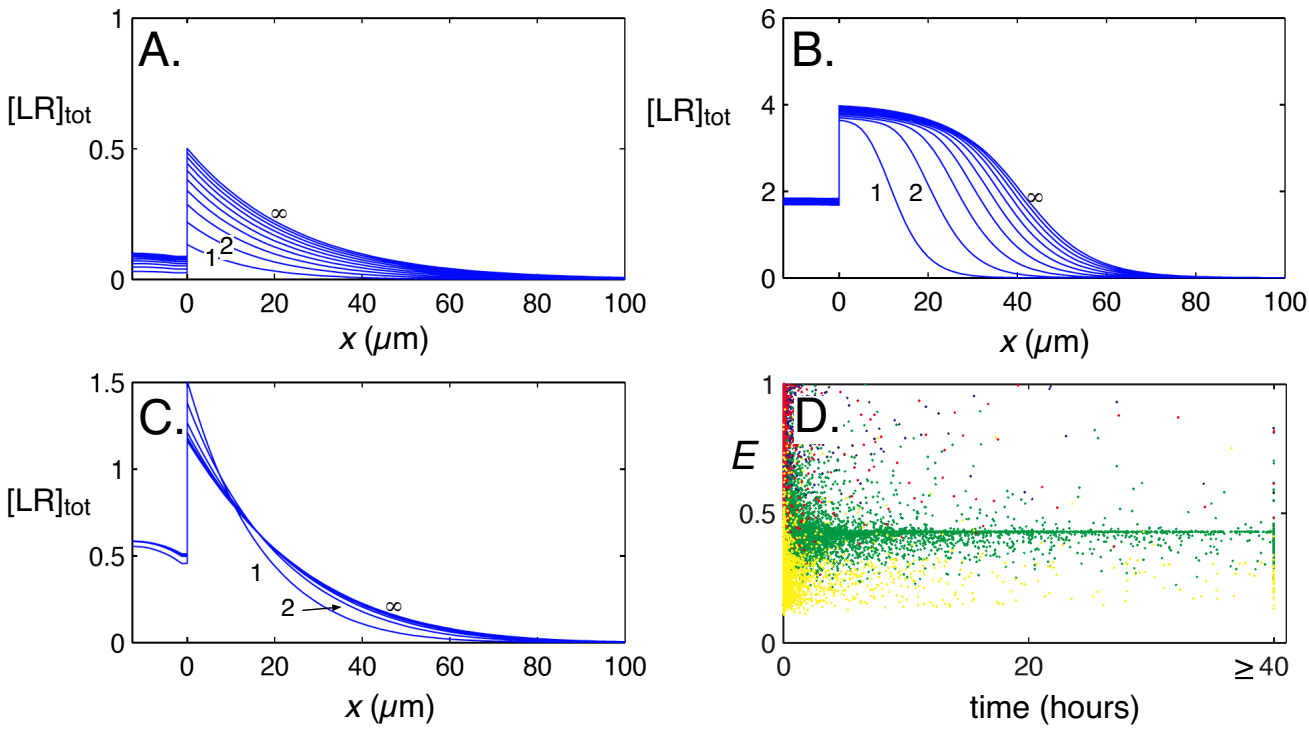

Model 1
Model 2
Model 3
Model 4
Model 5
Percentage of cases
E
0
0.5
1
1.5
2
2.5
3
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
0.35
0.45


A.
E
1
0.5
0
10^{-3}
10^{-2}
10^{-1}
10^{0}
10^{1}
10^{2}
Ω_R
B.
$E = 0.43$
$[LR]_{tot}$
1
0.8
0.6
0.4
0.2
0
20
40
60
80
100
x (μm)
C.
$E = 0.69$
$[LR]_{tot}$
80
60
40
20
0
20
40
60
80
100
x (μm)
D.
E
1
0.5
0
10^{-3}
10^{-2}
10^{-1}
10^{0}
10^{1}
10^{2}
Ω_R


A.
E
1
0.5
0
10^{-6}
10^{-3}
10^{0}
10^{2}
Ω_R
B.
E
1
0.5
0
10^{-8}
10^{-4}
10^{0}
10^{6}
Ω_N
C.
E
1
0.5
0
0
0.2
0.4
0.6
0.8
1
ϕ_R/ϕ_{total}
D.
E
0.4
0.3
0.2
0.1
0.1
0.2
0.3
0.4
$ln2/ln(5+\frac{4vJ_m}{j_{degobs}K_m\eta_R\theta_N N_0(1+\frac{coth(\sqrt{\theta_N}d_0\Lambda_N)}{\sqrt{\theta_N}})})$
E.
$[LR]_{tot}$
4
3
2
1
E =0.13
0
20
40
60
80
100
x (μm)


A.
E
1
0.5
0
10^{-6}
10^{-3}
10^{0}
10^{2}
Ω_R
B.
E
1
0.5
0
10^{-8}
10^{-4}
10^{0}
10^{6}
Ω_N
C.
E
1
0.5
0
0
0.2
0.4
0.6
0.8
1
ϕ_R/ϕ_{total}
D.
E
1
0.5
0
0
0.2
0.4
0.6
0.8
1
ω_R/ω_{Rmax}
E.
E
0.4
0.3
0.2
0.2
0.3
0.4
$ln2/(2ln5 - lnQ)$
F.
$E = 0.23$
$[LR]_{tot}$
1.5
1
0.5
0
20
40
60
80
100
x (μm)


A.
B.
C.
D.
E.
F.
E
1
0.5
0
10^{-6}
10^{-3}
10^{0}
10^{2}
Ω_R
10^{-8}
10^{-4}
10^{0}
10^{6}
Ω_N
0
0.2
0.4
0.6
0.8
1
ϕ_R/ϕ_{total}
ω_R/ω_{Rmax}
ω_N/ω_{Nmax}
$[LR]_{tot}$
0.05
0.03
0.02
0.01
$E = 0.25$
0
20
40
60
80
100
x (μm)


A.
[LR]tot
x (μm)
B.
[LR]tot
x (μm)
C.
[LR]tot
x (μm)
D.
E
time (hours)