

Additional file 4. The parameters sets used in the minimal and full models.

I. The relative auxin concentrations in the cell array along the central root axis											
The cell number	10-50	9	8	7	6	5	4	3	2	1	
The relative auxin concentration per cell (cu)	1.94	2	2	3.68	12.16	40	31.3	18	9	12.4	
II. The basic set of parameters											
Parameter	α	D	K_d	K_o	q_1	q_2	q_3	h_1	h_2	$k1=k2$	
Dimension	cu/tu	1/tu	1/tu	1/tu	cu	cu	cu	dl	dl	1/tu	
Values	1	0.066	0.0043	0.193	1	6.73	3.26	2.13	4	1	
III. The additional set of parameters for the full model											
Parameter	β	D_y	$k_{d,y}^0$	$k_{d,y}^1$	$k_{d,y}^2$	$h_{y,1}$	$h_{y,2}$	$k_{div,1}$	$k_{div,2}$	$h_{div,1}$	$h_{div,2}$
Dimension	cu/tu	cu/tu	1/tu	cu	cu	dl	dl	1/tu	dl	dl	dl
Values	1.5	0.1	0.3	3.5	0.5	4	1	0.1	0.01	2	3
IV. The robust set of parameters											
Parameter	α	D	K_d	K_o	q_1	q_2	q_3	h_1	h_2	$k1=k2$	
Dimension	cu/tu	1/tu	1/tu	1/tu	cu	cu	cu	dl	dl	1/tu	
Value	1	0.08	0.0045	0.25	1	100	3	2	10	1	