

Supplementary Table. Evaluation of alternative Crosslinking Orientation Biases

Components				Mts bound*	Minus-end ** area	Expected result	Simulation result
D	H	M	E			tightly focused	
p	p	p	p	20.6 ± 2.5	4.7 ± 2.2		loosely focused
p	p	p	i	8.9 ± 5.3	-		no organization
p	p	i	p	21.9 ± 4.7	4.3 ± 1.4		loosely focused
p	p	i	i	26.7 ± 2.9	2.3 ± 1.2		tightly focused
i	p	p	p	22.8 ± 1.0	5.2 ± 1.6		loosely focused
i	p	p	i	26.0 ± 2.8	2.8 ± 1.2		tightly focused
i	p	i	p	27.3 ± 1.5	2.0 ± 1.5		tightly focused
i	p	i	i	28.2 ± 1.6	2.0 ± 0.4		tightly focused
p	i	p	p	21.7 ± 1.6	5.2 ± 2.6		loosely focused
p	i	p	i	24.2 ± 3.3	1.9 ± 1.1		tightly focused
p	i	i	p	25.8 ± 3.1	2.6 ± 1.7		tightly focused
p	i	i	i	24.9 ± 2.5	1.8 ± 2.2		tightly focused
i	i	p	p	24.3 ± 4.2	2.6 ± 0.7		tightly focused
i	i	p	i	27.2 ± 2.5	2.8 ± 0.5		tightly focused
i	i	i	p	26.5 ± 2.3	2.1 ± 1.3		tightly focused
i	i	i	i	25.9 ± 2.2	1.9 ± 1.1		tightly focused
D	H	M				loosely focused	
p	p	p	-	21.3 ± 2.2	4.9 ± 2.0		loosely focused
p	p	i	-	24.3 ± 3.1	4.0 ± 1.6		loosely focused***
i	p	p	-	22.9 ± 2.3	4.8 ± 1.9		loosely focused
i	p	i	-	24.6 ± 1.9	2.9 ± 1.6		tightly focused***
p	i	p	-	23.4 ± 1.8	2.6 ± 2.3		tightly focused***
p	i	i	-	27.3 ± 1.8	2.2 ± 1.4		tightly focused
i	i	p	-	25.7 ± 1.9	2.6 ± 1.5		tightly focused
i	i	i	-	27.0 ± 1.7	2.2 ± 1.5		tightly focused
D		M				tightly focused	
p	-	p	-	6.9 ± 2.4	-		no organization
p	-	i	-	27.8 ± 2.2	2.8 ± 1.2		tightly focused
i	-	p	-	5.3 ± 2.2	-		no organization
i	-	i	-	25.9 ± 3.8	2.2 ± 1.7		tightly focused
	H	M				tightly focused	
-	p	p	-	4.8 ± 1.8	-		no organization
-	p	i	-	26.4 ± 3.3	1.8 ± 0.7		tightly focused
-	i	p	-	5.2 ± 3.0	-		no organization
-	i	i	-	25.2 ± 1.8	2.4 ± 1.8		tightly focused
D	H					loosely focused	
p	p	-	-	20.9 ± 3.3	5.2 ± 1.8		loosely focused
i	p	-	-	21.8 ± 3.2	2.2 ± 1.0		tightly focused
p	i	-	-	21.6 ± 2.9	2.8 ± 1.2		tightly focused
i	i	-	-	23.4 ± 3.8	2.5 ± 1.2		tightly focused

p = parallel, I = indiscriminate, D = dynein, H = HSET, E = Eg5, M = Minus-End Crosslinking

* = Number of microtubules bound to one another at their minus-ends in the final frame, mean ± S.D., five trials of 30 microtubules each

** = Area occupied by minus-ends in the final frame, mean ± S.D.

*** = mean ± S.D., ten trials of 30 microtubules each