

**Supplemental Table 1: Microtubule contact times following zippering and catastrophic collisions in YFP-TUA6 expressing cells**

Microtubule orientation relative to the cell axis	Contact time (sec)	
	Zippering	Catastrophic collision
Transverse	203 ± 96 (19)	20 ± 14 (4) <sup>a</sup>
Longitudinal	118 ± 33 (7) <sup>c</sup>	15 ± 5 (21) <sup>b</sup>

The data represent the average microtubule contact times ± S.D. (n = microtubules) following microtubule zippering or catastrophic collisions.

<sup>a</sup> Comparison between the contact times for zippering and catastrophically colliding transverse microtubules: p-value ~ 0.0001 (Mann-Whitney test)

<sup>b</sup> Comparison between the contact times for zippering and catastrophically colliding longitudinal microtubules: p-value ~ 0.0001 (Mann-Whitney test)

<sup>c</sup> Comparison between the contact times for zippering transverse and longitudinal microtubules: p-value ~ 0.005 (Mann-Whitney test)