Table S1. Calculated shape features of pili kernels

|  |  |  |  |
| --- | --- | --- | --- |
| Features | Equations\* | Interpretation | References |
| Roundness (R) | $$R=\frac{P^{2}}{4πA}$$ | 1 = round>1= not round | Parikh, 2016 |
| Elongation (El) | $$El=\frac{L}{W}$$ | 1= circle>1= non-circular | Firatligil-Durmus et al., 2010 |
| Eccentricity (Ec) | $$Ec=\frac{\sqrt{L^{2}-W^{2}}}{L}$$ | 0= circle1= straight line | Abbott, 2008 |
| Pointness (Po) | $$Po=\frac{2A\_{Half Largest}-A}{A}$$ | >Po = pointed | VideometerLab3 |
| Compactness of Ellipse (C) | $$C=\frac{4A}{πLW}$$ | 1=circle<1= non-circular | Ferri et al., 2017 |

\*A projected area (mm2), P perimeter (mm), L length (mm), and W width (mm)