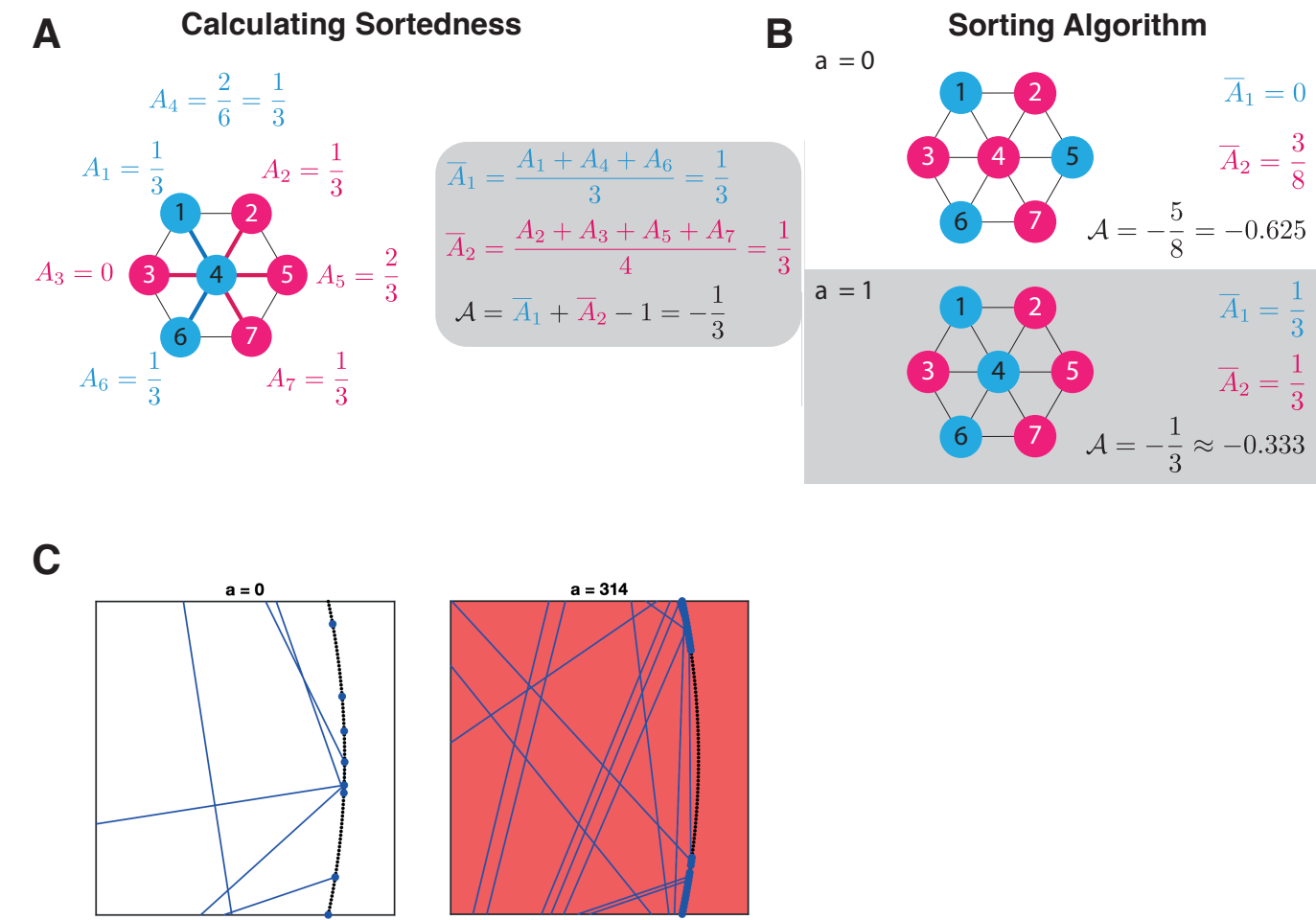
A
Calculating Sortedness
$A_4 = \frac{2}{6} = \frac{1}{3}$
$A_1 = \frac{1}{3}$
$A_2 = \frac{1}{3}$
$A_3 = 0$
$A_5 = \frac{2}{3}$
$A_6 = \frac{1}{3}$
$A_7 = \frac{1}{3}$
1
2
3
4
5
6
7
$\overline{A}_1 = \frac{A_1 + A_4 + A_6}{3} = \frac{1}{3}$
$\overline{A}_2 = \frac{A_2 + A_3 + A_5 + A_7}{4} = \frac{1}{3}$
$\mathcal{A} = \overline{A}_1 + \overline{A}_2 - 1 = -\frac{1}{3}$
B
Sorting Algorithm
a = 0
$\overline{A}_1 = 0$
$\overline{A}_2 = \frac{3}{8}$
$\mathcal{A} = -\frac{5}{8} = -0.625$
a = 1
$\overline{A}_1 = \frac{1}{3}$
$\overline{A}_2 = \frac{1}{3}$
$\mathcal{A} = -\frac{1}{3} \approx -0.333$
C
a = 0
a = 314