

Figure 1: Polygons with inserted "visibility event" vertices.

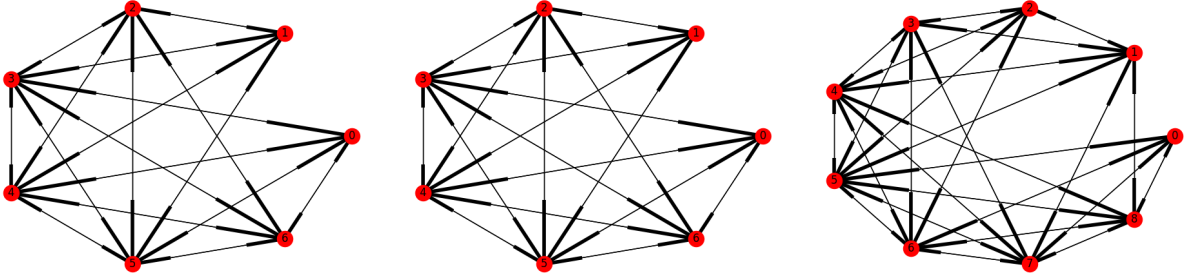


Figure 2: Bounce visibility graphs (edge-to-edge visibility) for the polygons (edge between segments  $i$  and  $j$  implies that there exists a point and angle which allows transitions).

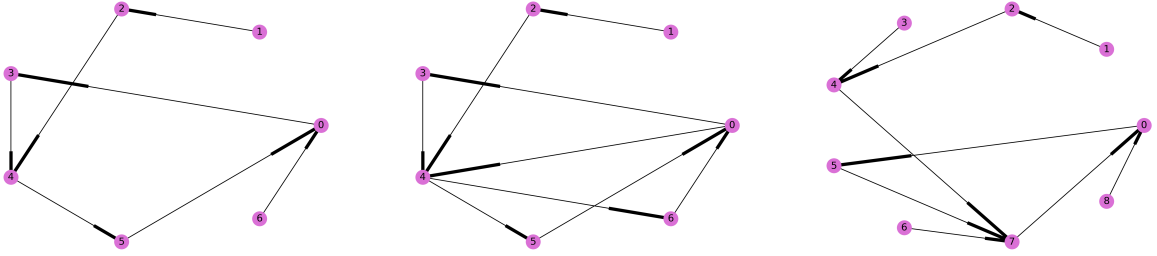


Figure 3: Reduced bounce visibility graphs, for the angle range  $0.15 < \theta < 0.19$  radians.

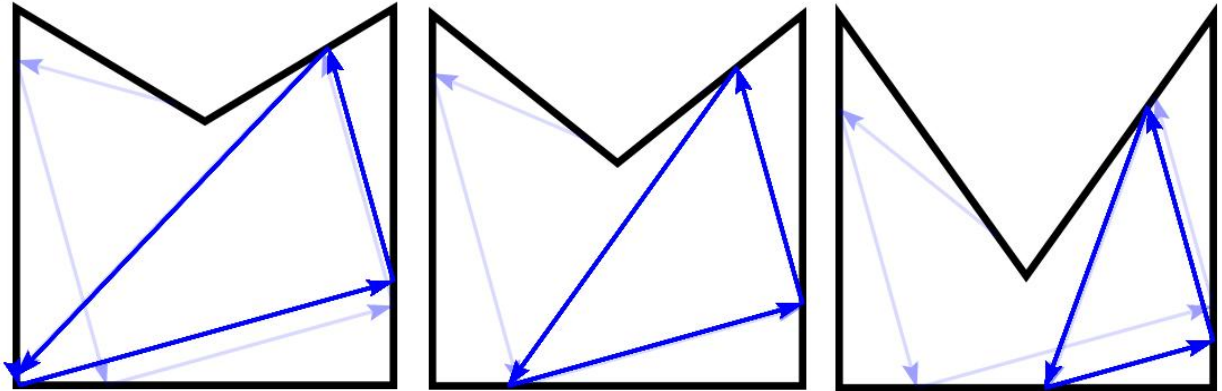


Figure 4: Limit cycles for  $\theta = 0.17$  radians (counterclockwise from boundary)