Geometric Intersection

Detecting Intersection Between Convex Polygons
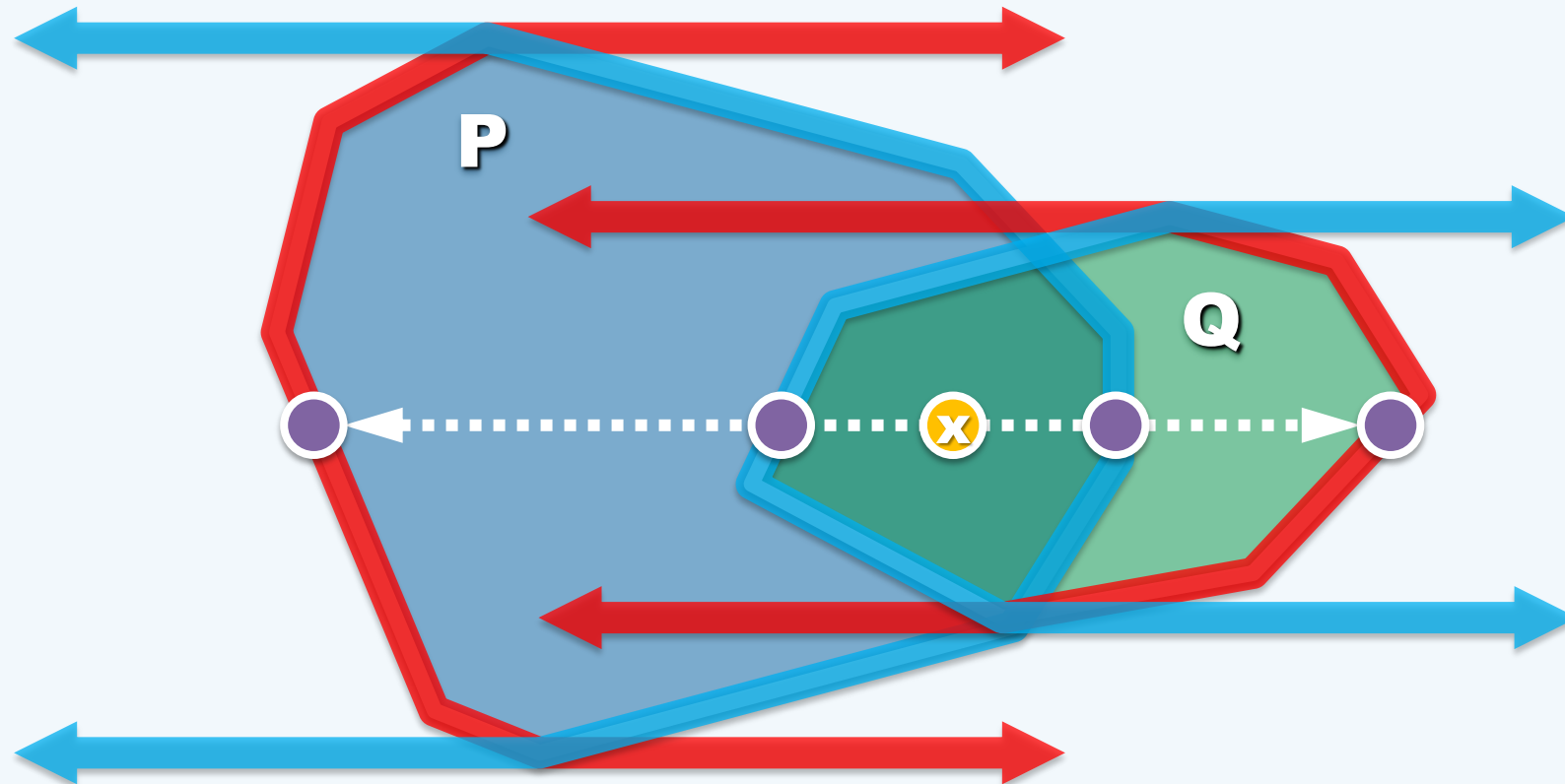
- Criterion

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Double Intersections

❖ Let P and Q be two convex polygons in the plane. Then

1) $P \cap Q = \varnothing$ iff $P_L \cap Q_R = \varnothing$ or $P_R \cap Q_L = \varnothing$ //or,

2) $P \cap Q \neq \varnothing$ iff $P_L \cap Q_R \neq \varnothing$ and $P_R \cap Q_L \neq \varnothing$ //Henc

❖ To `detect` the intersection between two convex polygons, it suffices

to `detect` the intersection between two `semi-infinite` convex chains `twice`