Geometric Intersection

Edge Chasing

- Example

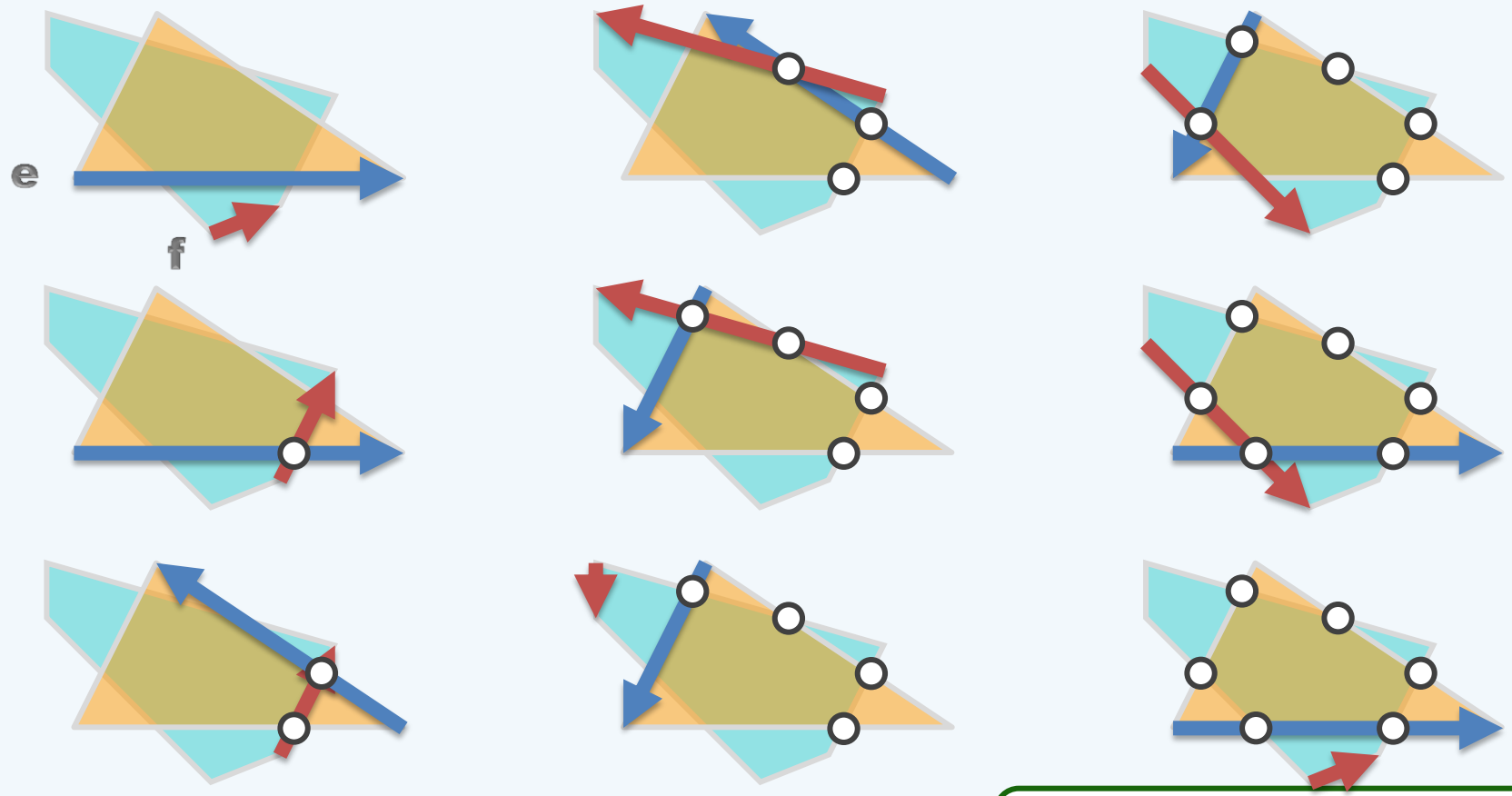
Junhui DENG

deng@tsinghua.edu.cn

Edge Chasing

❖ Intuitively, this algorithm is done in such a way that

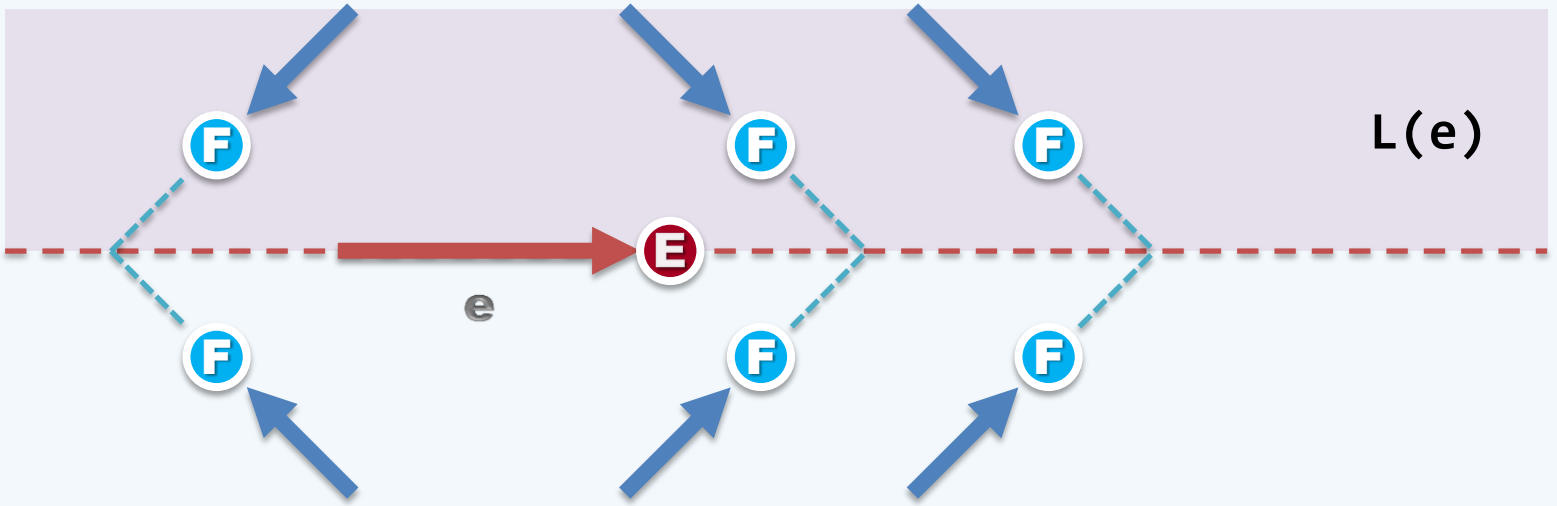
these 2 edges effectively chase each other around the intersection polygon



Advance Which Edge?

- The key part of the algorithm is to decide

  who (e or f) will be advanced in each iteration?

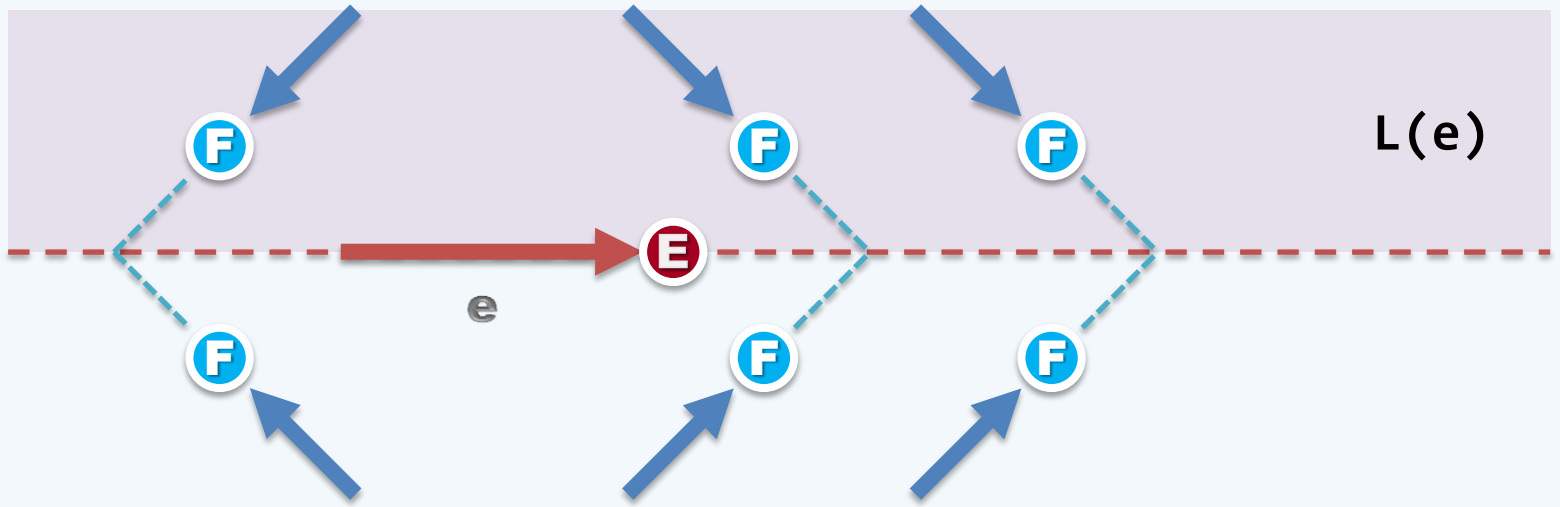


Advance Which Edge?

❖ Let E / F be the destination endpoint of e / f. Then

1) if $F \notin L(e)$ and $e \times f > 0$, or $F \in L(e)$ and $e \times f < 0$, advance f

2) if $E \notin L(f)$ and $f \times e > 0$, or $E \in L(f)$ and $f \times e < 0$, advance e



Advance Which Edge?

❖ Who will be advanced when neither condition holds?

//Refer to O'Rourke's paper for more details