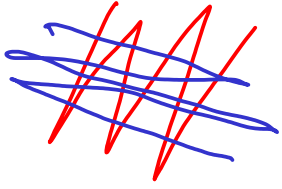


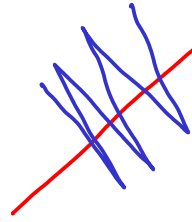
The number of intersections of two simple polygons: an almost optimal bound

joint work with Eyal Ackerman and Balázs Keszegh

to appear at SoCG 2020.

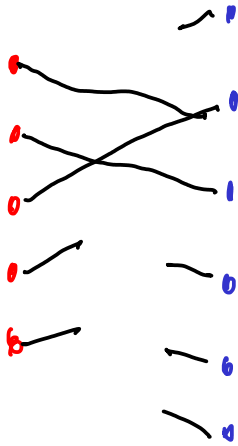


$$m \cdot n$$



$$m \cdot (n - 1)$$

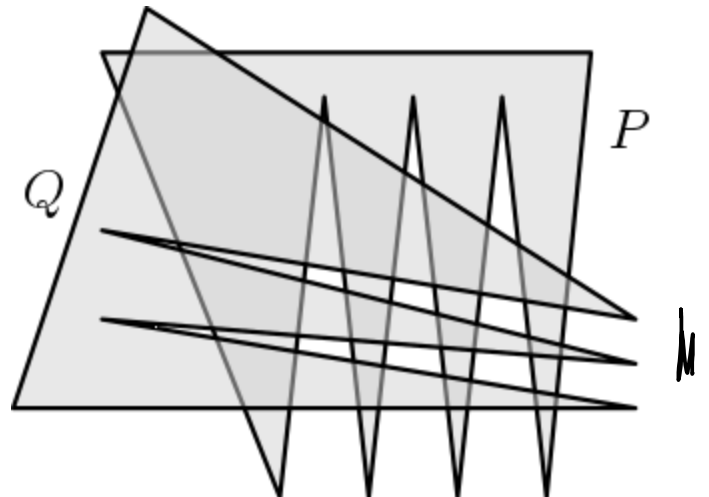
m, n odd



$$\underline{m \cdot n - \max\{m, n\}}$$

$$m + n - \cancel{3} \quad \text{C}$$

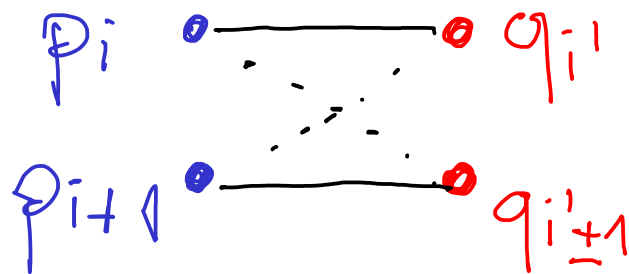
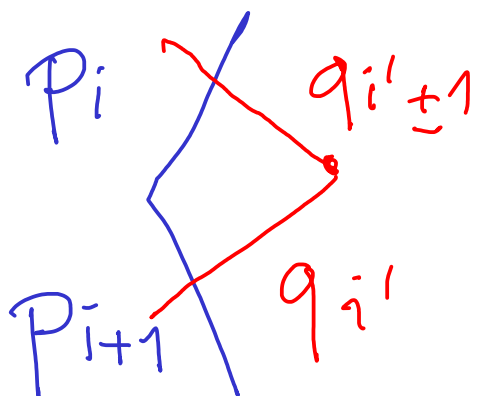
$$m \cdot n - (m + n - \cancel{3}) \quad 2^{2^{67}}$$



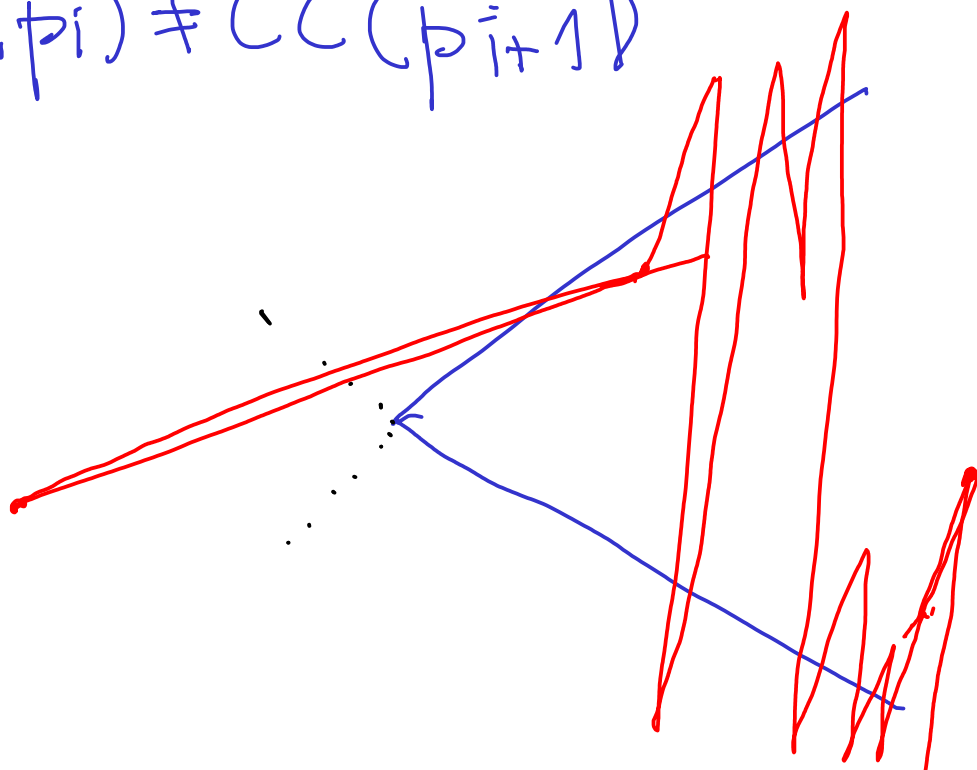
J. Černý, J. Kára, D. Král', P. Podbrdský, M. Sotáková, and R. Šámal (2013):

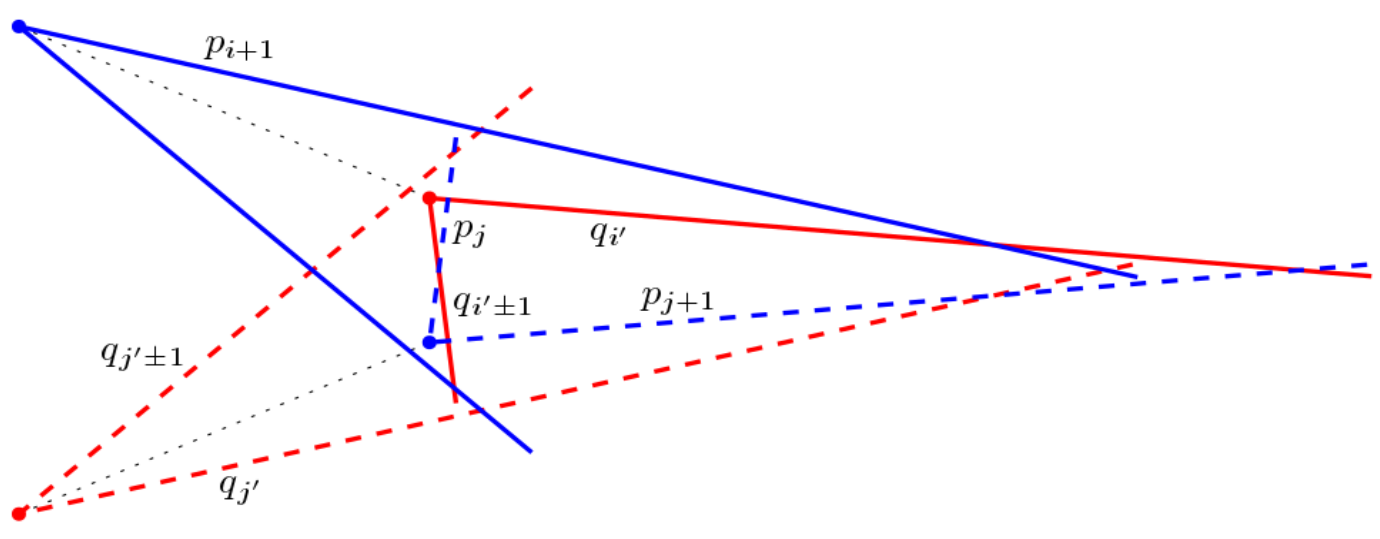
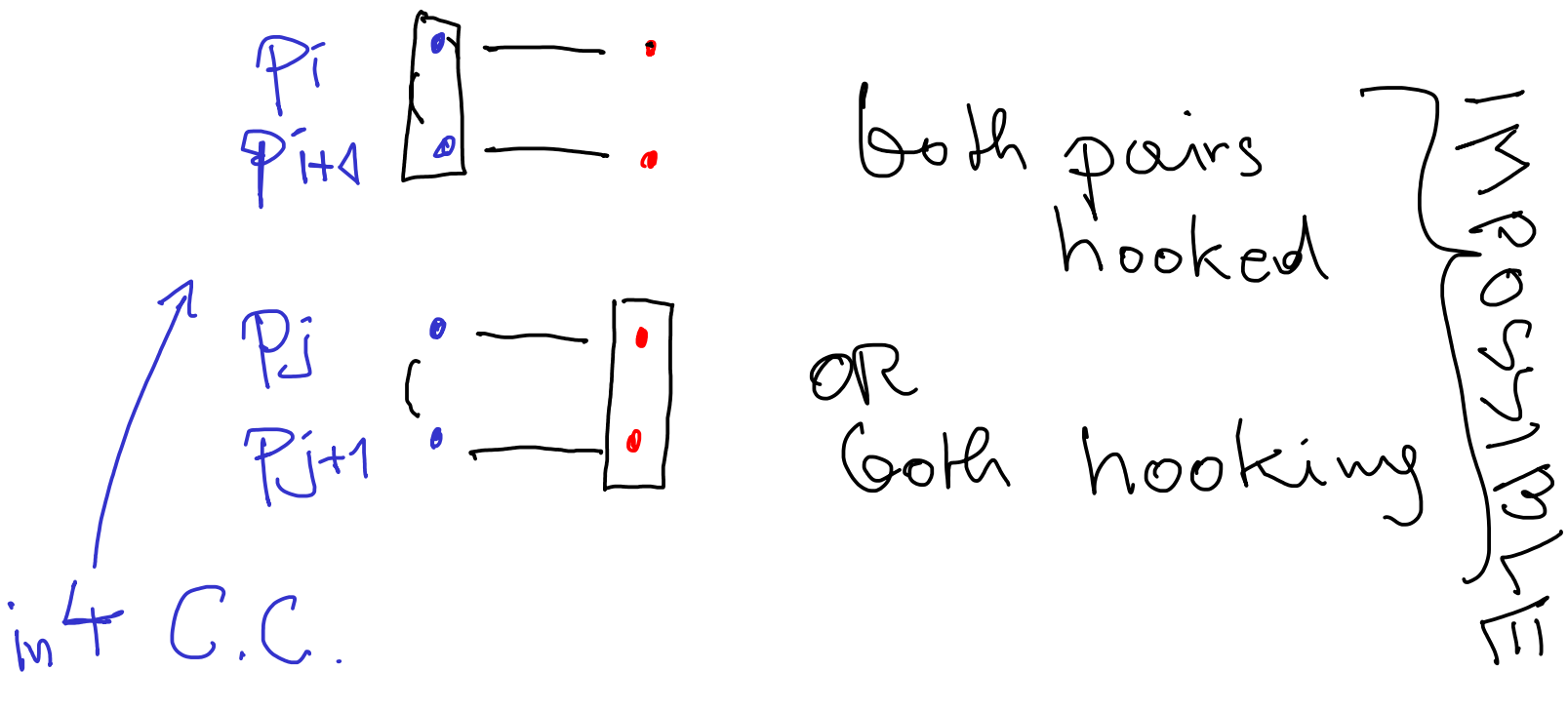
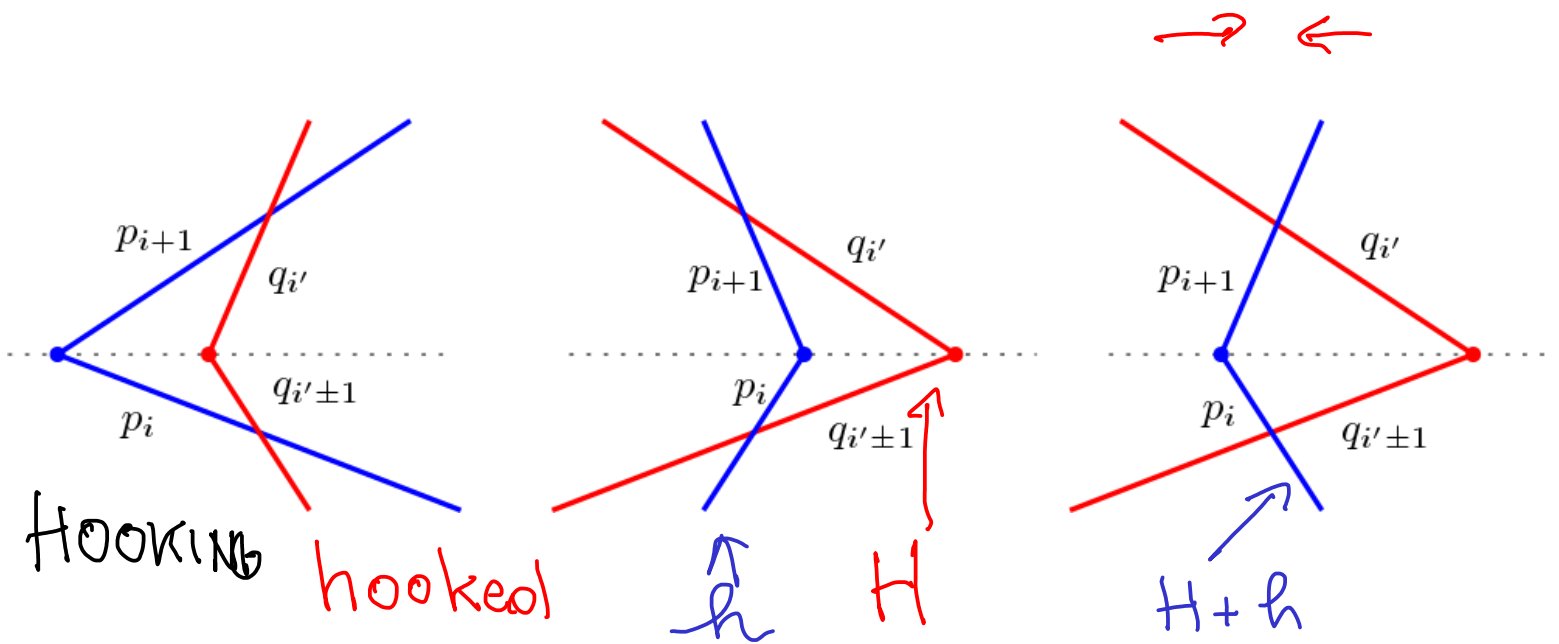
$$mn - (m + \frac{n}{6}) \quad \text{for } m > n$$

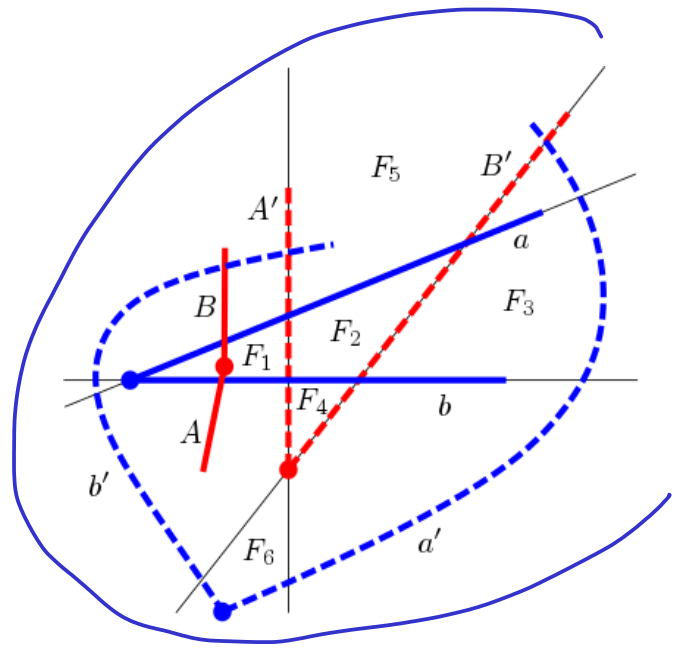
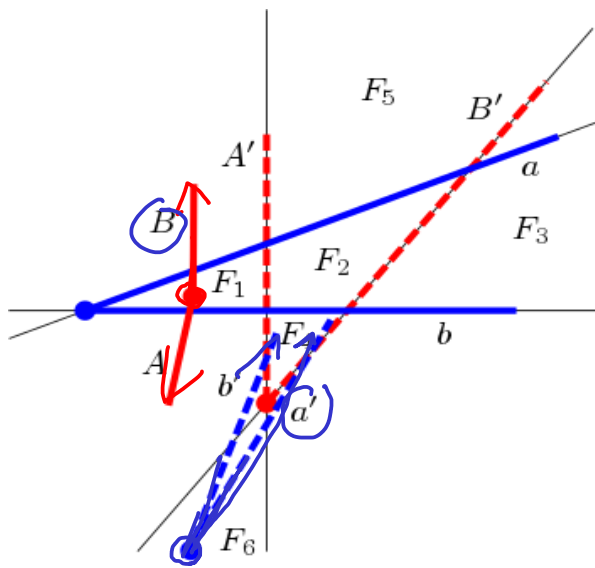
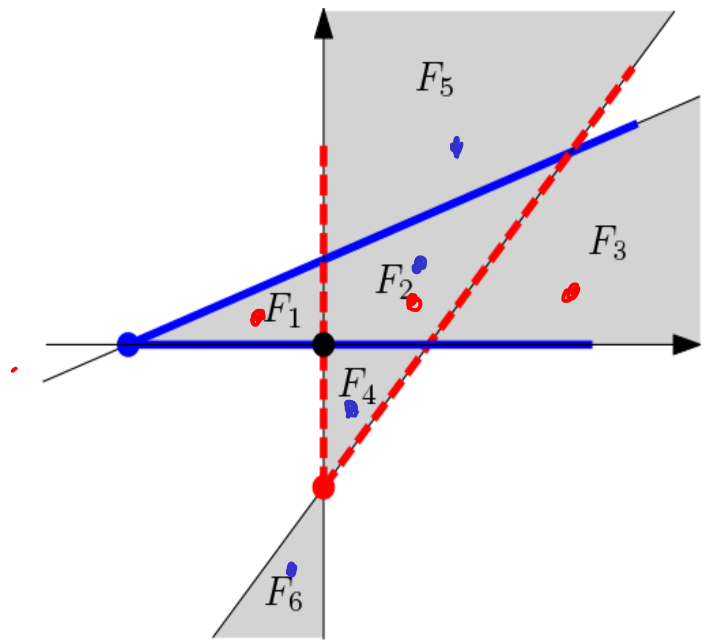
$$mn - (m + \frac{n}{2})$$



$$CC(P_i) \neq CC(P_{i+1})$$







→ (H • 1.
• 2.

h :

H • 3
• 3

(H • 1
• 4

(H • 5
• 5

h :

h :

$$mn - (m + (n-5)/2)$$

- ↑ -

