2

NextBit(r)

Dbl(T, f, Q)

Add(T, f, P, Q)

Speeding-up general pairings

!

general notice

Computing pairings fast is quite technical.
Better suited for papers than slides

✓

core idea

For $P \in E(\mathbb{F}_p)$ and $Q \in E'(\mathbb{F}_p)$, don't use curve arithmetic but pairing $e(P, Q)$ to get overlap in orders!

✓

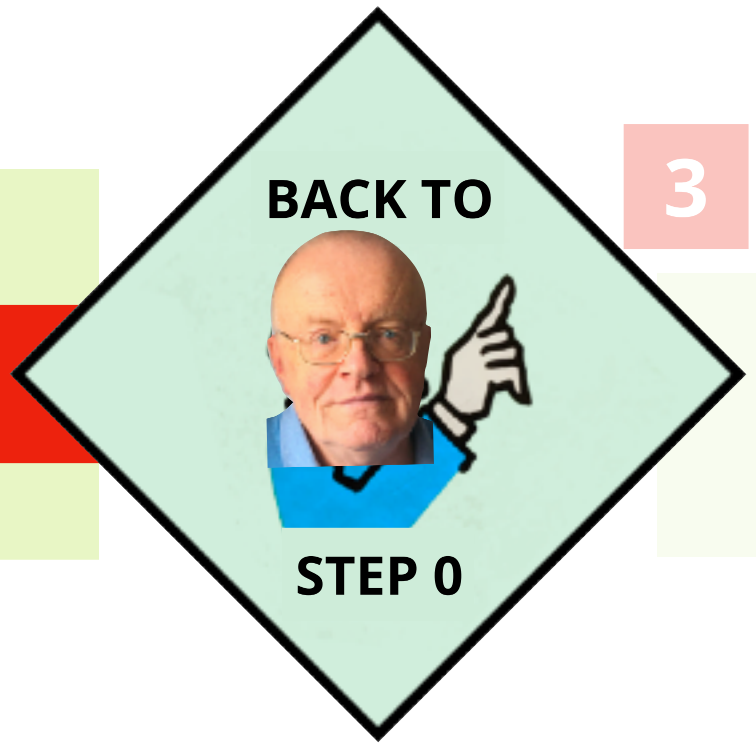
general approach

Instead I describe the general approach, and leave all details out

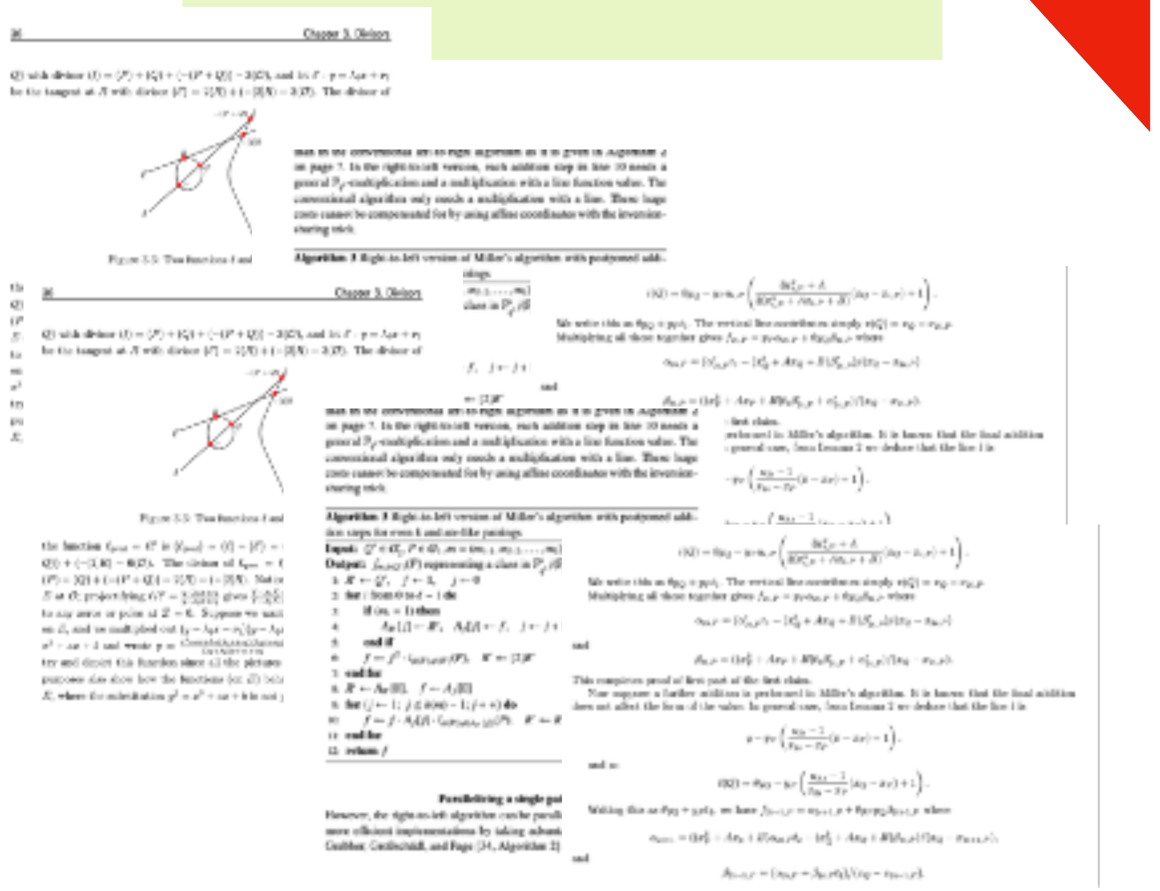
0 take some literature

1

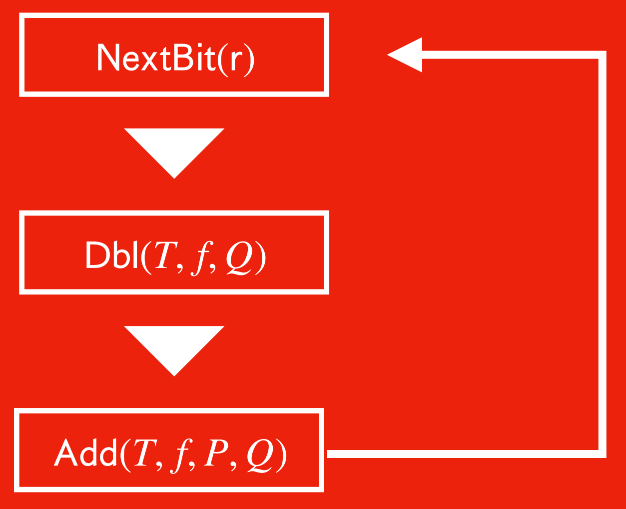
2



3 fast pairings



2



Speeding-up general pairings

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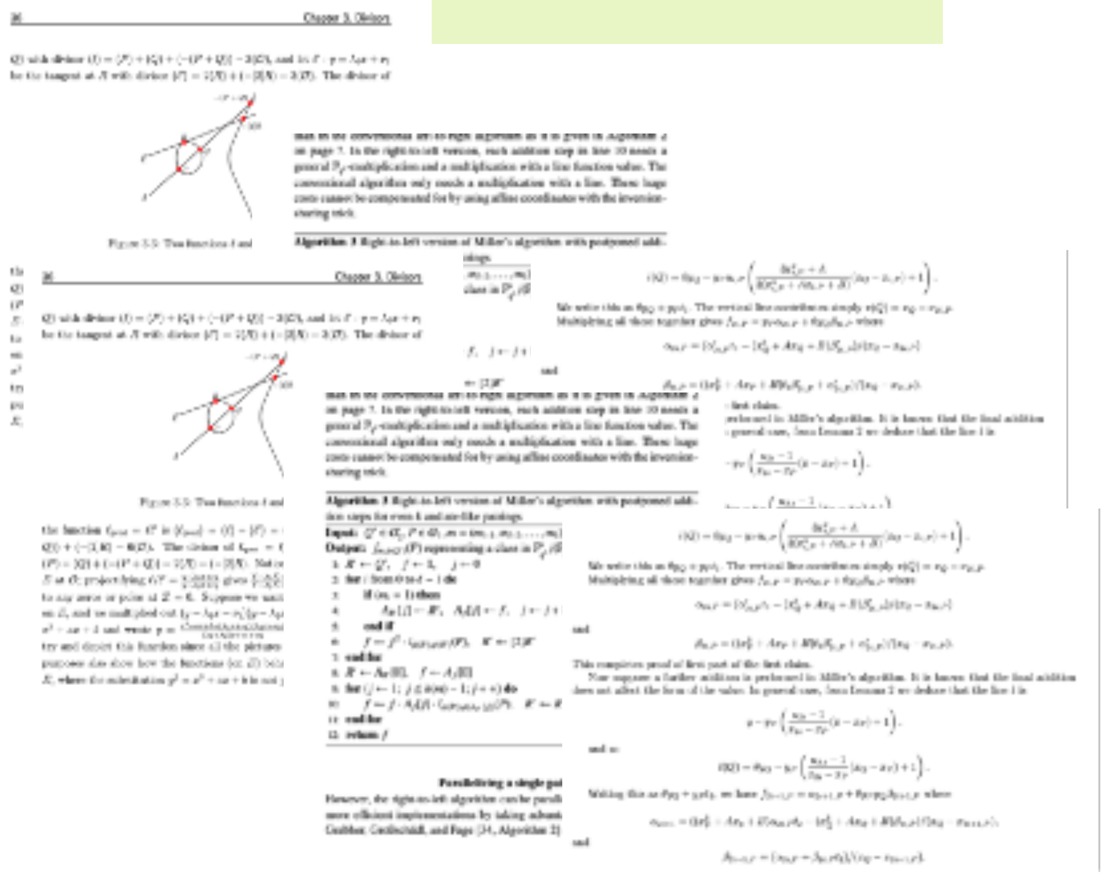

1 implement all tricks that apply

2 benchmark speed and finetune

3 fast pairings