

**Speeding-up
general pairings**



general notice

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



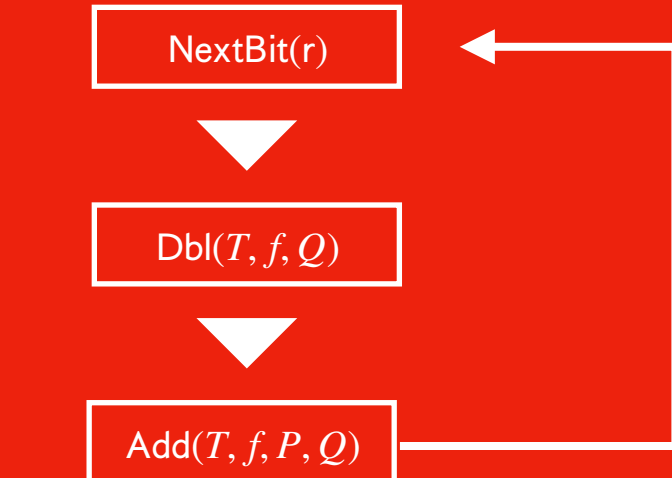
core idea

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



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!

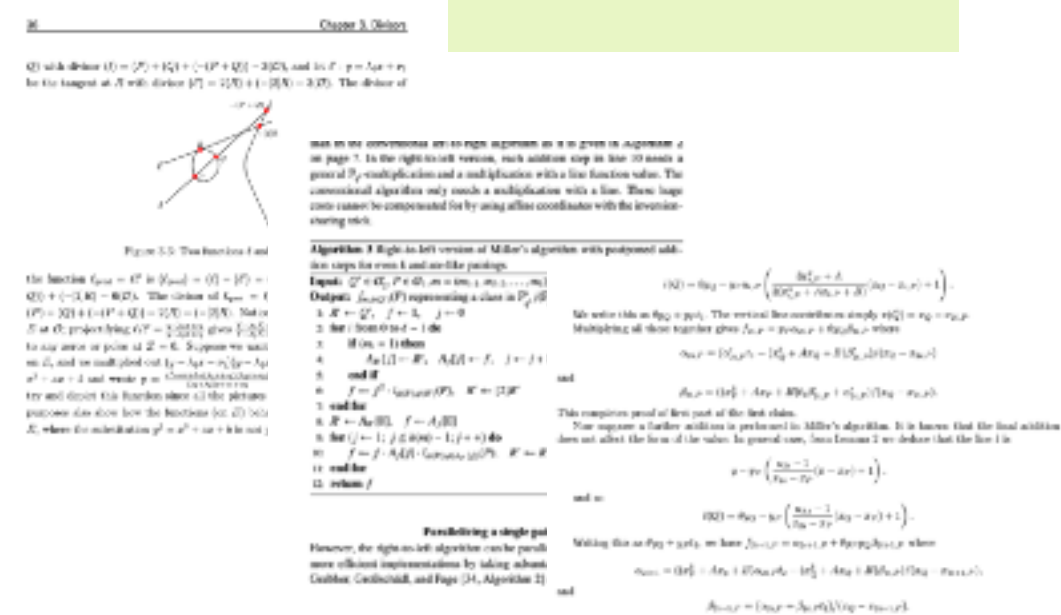


general approach

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

0

take some literature



1

implement all tricks
that apply

2

benchmark speed
and finetune

3

fast pairings