The agenda for today

✓ PART 1
The Tate Pairing

✓ PART 2
The Tate Profile

PART 3
Generalisations

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Generalisations

Definition 5. Let $f : A \to B$ be a separable isogeny between abelian varieties over a finite field k. Let $(\ker f)(k)$ be of type δ with associated basis $\langle P_1, \ldots, P_r \rangle$. The *generalised f-Tate profile* $t_{\ker f}$ is the map

$$t_{\ker f} : (\operatorname{coker} \hat{f})(k) \;\to\; \mu_\delta, \qquad Q \;\mapsto\; (\, t_f(P_1, Q), \ldots, t_f(P_r, Q) \,).$$

Man at the Street (2003)