## Stellingen

## accompanying the thesis

## Isogenies & Isometries

by

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- Probing using the Tate pairing is a magical technique: we learn something about fibers φ<sup>-1</sup>(P) even if we cannot compute φ or φ̂.
- 2. Signatures of schemes based on generalized 1-bit Sigma protocols are too large: isometry-based cryptography must be more bold.
- 3. Never start with  $\ell = \operatorname{char}(\mathbb{F}_q)$  or  $\ell = 2$ .
- 4. The worst constant-time algorithms are variable time.
- 5. In practice, almost every square matrix  $\mathbf{A} \in \mathbb{F}_q^{n \times n}$  is invertible.
- 6. A line length over 80 characters should *strongly* be avoided.
- 7. Whenever someone writes "Clearly," in a piece of text, replace it by "I think" to improve whatever follows.
- 8. Clearly, the Tate pairing is more intuitive than the Weil pairing.
- 9. Curves of genus 2 are twice as fun as curves of genus 1.
- 10. The  $\alpha$ -coefficient is superior to the Montgomery *A*-coefficient.