

## Exposé court

### 13 *Avoiding problems*

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In 2020 Masser and Zannier proved that “most” abelian varieties over the algebraic numbers are not isogenous to any jacobian; here “most” refers to an ordering by some height function. We discuss some analogous problems in powers of the modular curve  $Y(1)$ , for instance: given a curve  $C \subseteq Y(1)^2$ , how can we find a rational point  $(p, q) \in Y(1)^2$  which is not isogenous to any point  $(x, y) \in C$  (meaning that  $p$  and  $x$  - resp.  $q$  and  $y$  - represent isogenous elliptic curves)?