

## Uniform bounds for rational points on hyperelliptic fibrations

DANTE BONOLIS AND TIM BROWNING

**Abstract.** We apply a variant of the square-sieve to produce an upper bound for the number of rational points of bounded height on a family of surfaces that admit a fibration over  $\mathbb{P}^1$  whose general fibre is a hyperelliptic curve. The implied constant does not depend on the coefficients of the polynomial defining the surface.

**Mathematics Subject Classification (2020):** 11D45 (primary); 11L40, 11N36, 14G05 (secondary).