

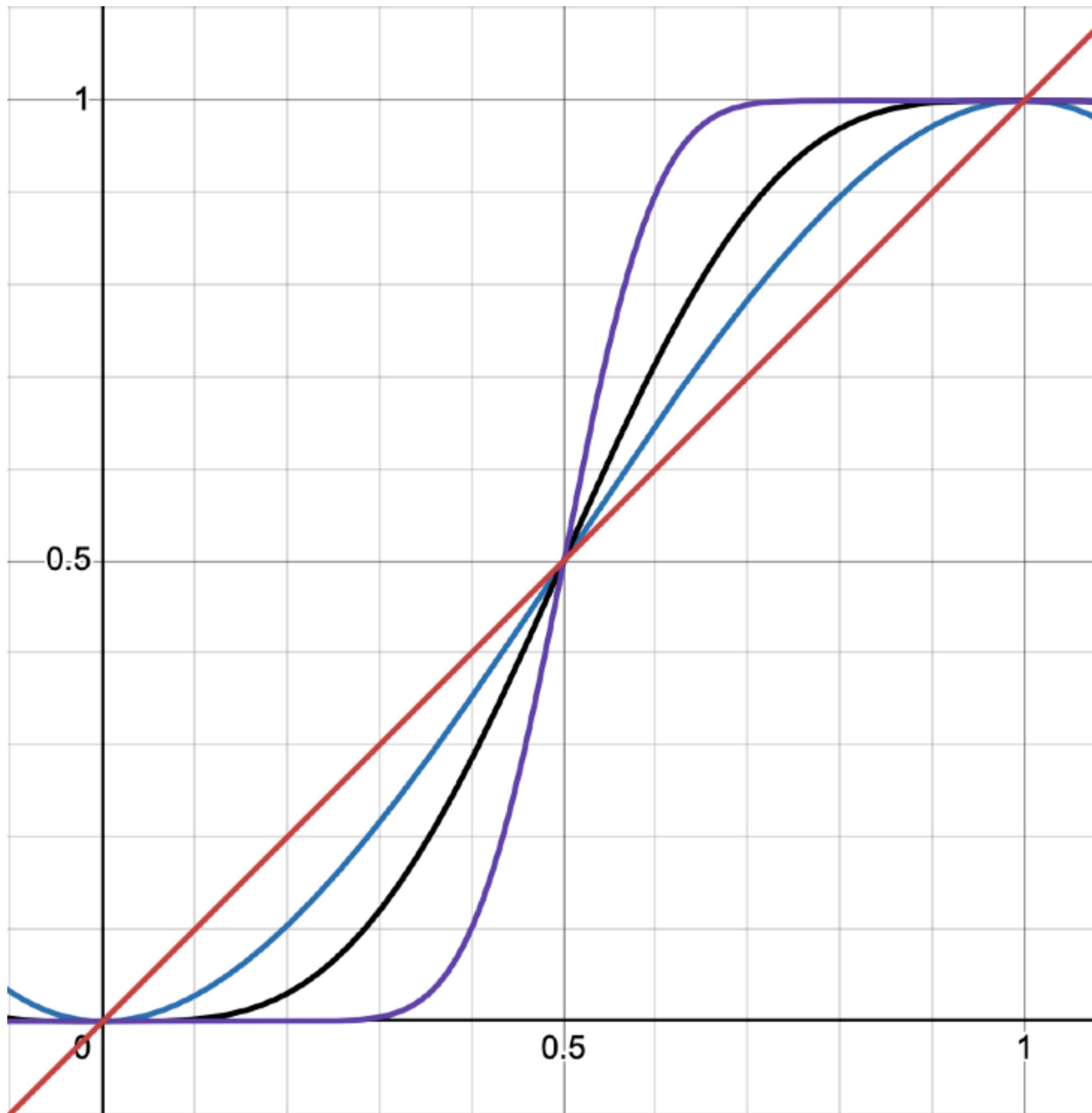
Cleaning error in CKKS

BLEACH: Via polynomial approximation [DMP24]

$$h_1(x) = 3x^2 - 2x^3$$

$$h_1^2(x) = (h_1 \circ h_1)(x)$$

$$h_1^4(x) = (h_1^2 \circ h_1^2)(x)$$



Cleaning error in CKKS

Bootstrapping Bits with CKKS [BCKS24]

- $f_{BinBoot}(x) = \frac{1}{2}(1 - \cos(2\pi x))$
- Cleaning par interpolation trigonométrique
 - Séries de Taylor
 - Polynômes de Chebyshev
- Plus efficace que h_1 de BLEACH

