

1147-11-247

Reinier Broker*, 805 Bunn Drive, Princeton, NJ. *Lower bounds for Hilbert class polynomials.*

Hilbert class polynomials (minimal polynomials of CM elliptic curves) have various algorithmic applications. There are various algorithms that compute them in time proportional to proven upper bounds on their sizes. Based on examples, it is widely believed that the proven upper bounds are close to the truth. In this talk we address whether we can rigorously prove any lower bounds on their sizes. As we will see, the answer depends on what we are willing to assume. (Received January 14, 2019)