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## Interpolating isogenies by Benjamin Wesolowski

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Abstract. In 2011, Jao and De Feo proposed a key exchange based on the presumed hardness of the following problem: given two elliptic curves, and the images of a few points through a secret isogeny, compute this isogeny.

In 2022, a polynomial-time algorithm was discovered. This powerful new tool has broken many cryptosystems, but has also lead to new constructions, and other applications in algorithmic number theory. We will present this algorithm and some of its applications.