

On endomorphism algebras of GL2-type abelian varieties and Diophantine applications

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Let f and g be two newforms with equal coefficient fields. In this talk we will see how a congruence between the residual Galois representations of f and g for a sufficiently large prime p implies strong conditions between the algebras of endomorphisms of the abelian varieties attached to f and g . Then, we will see an application of such a result in the study of some generalized Fermat equations.

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