Images of Galois representations

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Abstract

The absolute Galois group of a local or global field can be better understood by studying its representations, important classes of which are constructed from geometric objects such as elliptic or modular curves. The results of a line of work initiated by Serre, Ribet and Momose suggest that certain interesting symmetries of a Galois representation constructed this way are in bijection with the symmetries of the underlying geometric object. We present a recent result in this direction, obtained in a joint work with J. Lang and A. Medvedovsky.