

Non-archimedean construction of elliptic curves and abelian surfaces

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In this talk I will describe a non-archimedean conjectural construction of the Tate lattice of an elliptic curve E defined over an arbitrary-signature number field F , as well as that of an analogous for an abelian surface of GL_2 -type. One important feature of all these constructions is their explicitness, which allows for the numerical verification of the conjectures. In particular I will outline how these computations can be carried out in some cases for which modular symbol techniques do not suffice.

This is joint work with Xavier Guitart and Mehmet H. Sengun.