

**On the image of Galois representations and the Hodge conjecture
for abelian varieties**

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I will discuss some recent computations of images of l -adic Galois representations attached to the Tate module of abelian varieties over number fields. The computations enabled verifications of Mumford- Tate, Hodge and Tate conjectures for new classes of abelian varieties. (The lecture is based on my joint work with G.Banaszak, K.Gornisiewicz and P.Krason)