

# Séminaire de théorie des nombres

Le 13 octobre 2014 à 14h (PRG)

## Compatible systems of symplectic Galois representations and the inverse Galois problem

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**Résumé :** In this talk I will discuss joint work with L. Dieulefait, S.W. Shin and G. Wiese on compatible systems of symplectic Galois representations attached to automorphic forms, leading to the realisation as Galois groups over  $\mathbb{Q}$  of groups of the form  $\mathrm{PSp}_{2n}(\mathbb{F}_{\ell^d})$  or  $\mathrm{PGSp}_{2n}(\mathbb{F}_{\ell^d})$  for a prefixed exponent  $d$ , a prefixed integer  $n$ , and a positive density set of prime numbers  $\ell$ .