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Recent research interests : hyperbolic and relatively hyperbolic groups, small cancellation constructions, and/or Dehn filling.

Groups of interval exchange transformations.

Algorithmic problem, such as isomorphism problems, equation problems.

My latest interest in this direction was about a solution to the conjugacy problem to certain elements of $Out(F_n)$ (M. Lustig announced a solution in the general case, and my study here is much more recreational and picturesque). I have considered atoroidal elements, *i.e.* those for which the semi-direct product $F \rtimes Z$ is hyperbolic. For deciding whether two such automorphisms are conjugated, one can try to use a solution to the isomorphism problem for hyperbolic groups, but then one encounters an orbit problem for the automorphism group of $F \rtimes Z$. It turns out that this problem is decidable.