



THE WEIZMANN INSTITUTE OF SCIENCE  
FACULTY OF MATHEMATICS AND COMPUTER SCIENCE

Seminar in Geometry and Topology

Room 1 ,Ziskind Building  
on Tuesday, May 07, 2019  
at 16:15

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Novikov's problem and Arnoux-Rauzy IET

Abstract:

In 1981 P.Arnoux and J.-C.Yoccoz constructed their famous foliation on a surface of genus three with zero flux. Later it was shown that this example can be generalized, and in particular that there is an interesting fractal set of parameters that give rise to the foliations with similar properties. This fractal was named in honour of Gerard Rauzy.

In my talk I will briefly discuss how such a family of foliations appeared in different branches of mathematics (symbolic dynamics, Teichmuller dynamics, low-dimensional topology, geometric group theory) and even in theoretical physics (conductivity theory in monocrystals) and explain what do we know about this family from ergodic point of view.

The talk is based on joint work with Pascal Hubert and Artur Avila and on a work in progress with Ivan Dynnikov and Pascal Hubert.