

Braids, algebraic functions and Hilbert's (still open) 13th problem

Benson Farb

Algebraic functions were central objects of 19th century mathematics, but today many mathematicians don't even know their definition. In this talk I will describe part of the rich and beautiful circle of ideas surrounding the theory of algebraic functions. This includes braid groups, Galois theory, hyperplane complements, the theory of discriminants, and more. I will then explain why Hilbert's 13th Problem, widely believed to have been solved by Arnol'd and Kolmogorov in 1957, is still open.