

## Conference Ball Quotient surfaces and Lattices

**Piotr Pokora** : Hirzebruch–Kummer covers of algebraic surfaces

Abstract : In my talk I present an short outline of Hirzebruch’s construction of abelian covers which led to new examples of 2-dimensional complex compact ball-quotient in the middle of 1980s. After recalling basic examples, I will present a missing part of the story, namely an open problem in the theory of line arrangements which potentially might lead to new examples of ball-quotient surfaces. Time permitting, I will report on some results about the non-existence of ball-quotient surfaces via Hirzebruch’s construction.