The project belongs to complex algebraic geometry, the domain of modern mathematics which studies solutions of polynomial equations, called algebraic varieties. Powerful methods developed by algebraic geometry in the XX-th century made it one of the central domains with multiple connections to such diverse fields as algebra, complex analysis, topology, number theory or string theory.

The project aims to develop the so-called Minimal Model Program which is a modern framework for a classification of algebraic varieties, that is, understanding their shapes, structure and relations. We concentrate mostly on surfaces, which are varieties of dimension two, both because the existing theory works best in this case and because there are intriguing hard open problems like the Jacobian Conjecture, which despite many attempts, remain unsolved for decades. Hopefully, we will be able to make contributions which will be used to solve them.