

Plans of my research

1. **The study of value distribution theoretical properties of the Gauss map of algebraic minimal surfaces**

We will frame value distribution theory considered “the global period condition” of the Gauss map of algebraic minimal surfaces and completely reveal the value distribution theoretical properties for it.

2. **The study of value distribution theoretical properties of the hyperbolic Gauss map of algebraic CMC-1 surfaces**

We will frame the construction of algebraic CMC-1 surfaces with genus one and over and completely reveal the value distribution theoretical properties of the hyperbolic Gauss map of algebraic CMC-1 surfaces.

3. **The study of value distribution theoretical properties of the Gauss map of non-orientable complete minimal surfaces**

Many researchers study the Gauss map of non-orientable complete minimal surfaces. However, some unsolved problems are left. We will solve the problems and reveal the geometrical meaning behind them.

4. **The study of construction of minimal surfaces whose boundary is a polygon**

Plateau problem was solved in about 1930. However, the concrete construction is not yet established. We will study Garnier’s paper (He pointed out the relationship between Plateau problem and Riemann-Hilbert problem) and frame the construction of minimal surfaces spanning a given polygon in space.