

CASTS Algebraic Geometry Summer Program

Grothendieck-Riemann-Roch theorem

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11:30 - 12:30

103, Mathematics Research Center Building (ori. New Math. Bldg.)

In this talk, I will discuss the proof of Grothendieck-Riemann-Roch theorem following [1]. First, I will introduce Grothendieck group, Chern classes (following [2]) and their properties.

Next, I will give the statement and the proof of Grothendieck-Riemann-Roch for non-singular quasi-projective varieties.

Reference:

[1] Borel, Serre, Le théorème de Riemann-Roch (1958)

[2] Grothendieck, La théorie des classes de Chern

