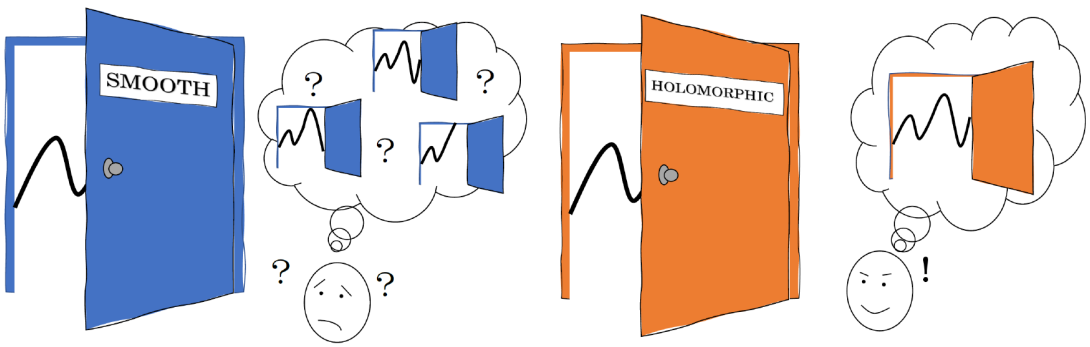
Mathematics 1, 2, and 3

Day 2, July 14, 4:50-6:20pm
Day 4, July 16, 4:50-6:20pm
Day 5, July 19, 4:50-6:20pm

An introduction to algebraic analysis

Abstract:

In high school mathematics, you probably learned differentiation and integration. Maybe, it was not emphasized when you learned it, the high school calculus is about functions of “real numbers”. In another world, the world of complex numbers, we can see a more beautiful and more rigid theory of calculus. In this course, we will focus on “the identity theorem” in complex analysis. This characteristic theorem (which does not exist in the world of real numbers) opens the door to many surprising perspectives to analysis and geometry. For example, we can see a one-to-one correspondence between certain differential equations and some topological objects (“sheaves”). For another example, we can give an interpretation of Euler’s mysterious formula 1+2+3+4+…=-1/12.



Total 3 sessions

・Lectures (1st (July 14) and 2nd sessions (July 16)
・Follow-up & free discussion (Final session) (July 19)

Each lesson: 4:50-6:20pm

Speaker: *Prof. Tatsuki Kuwagaki*

isp
OSAKA UNIVERSITY
School of Science
Graduate School of Science