

Research Report (April, 2022- March, 2023)

Enrollment from
April 2021

Department of Department of Pure and Applied
Mathematics

Yudai HATERUMA

I. List of Papers

Y. Hateruma and Y. Kaneko, On some Lie-theoretic solutions of the tt^* -Toda equations with integer Stokes data, preprint.

II. List of Talks

Yudai Hateruma "Some Lie theoretic solutions of the tt^* -Toda equations, The 3rd Shot of The 13th MSJ-SI "Differential Geometry and Integrable Systems" :March 3-13,2023

III. Research Results in AY2023

In this year, to extend the last year's research, I considered the classification of quantum field theories appearing in Cecotti and Vafa's 1993 paper "On classification of $N=2$ supersymmetric theories" from a mathematical standpoint. The results are summarized in the above paper.

IV. Research Plan for AY2023

I would like to reveal more fundamental aspects that were not clear in this year.