Research Report（April, 2017 - March, 2018）

Enrollment from April 2017 Department of Pure and Applied Mathematics Ryosuke ODOI

I. List of Papers

None

II. List of Talks

None

III. Research Results in AY2017

I calculated the local expression of a symplectic form on the monodromy manifold of a linear ordinary differential equation related to the sine-Gordon equation in Its-Lisovyy-Tykhyy (2015) with respect to parameters of the monodromy data in Its-Prokhorov (2016).

I studied a relation between symplectic forms induced by the asymptotic data and the holomorphic data of a tt*-Toda equation in the sense of Guest-Its-Lin (arXiv:1707.00259).

IV. **Research Plan for AY2018**

I study a relation between the above symplectic forms and the symplectic form induced by the Stokes data of a tt*-Toda equation in the sense of Guest-Its-Lin (arXiv:1707.00259), and I would like to clarify a geometric meaning of these symplectic forms.

Also, I study a relation between the above symplectic forms and the symplectic form on the space of Stokes matrices given by Boalch (1999).