

第 2 3 2 回 広島数理解析セミナー (2 0 1 8 年度)

Hiroshima Mathematical Analysis Seminar No.232

(本セミナーは第 4 回広島複素解析セミナーとの共催で行われます)

日時 : 2 月 6 日 (水) 1 6 : 0 0 ~ 1 7 : 3 0

場所 : 広島大学理学部 B 7 0 7

(今年度のセミナーの定例開催曜日は金曜日ですが , 今回は水曜日ですのでご注意ください)

講師 : Davide Guzzetti 氏 (SISSA, Italy)

題目 : Non-generic isomonodromy deformations at an irregular singularity and Frobenius manifolds

要旨 : Some of the main results of [1] and [5] (see also [4] for a synthetic exposition with examples), concerning non-generic isomonodromy deformations of a certain linear differential system with irregular singularity and coalescing eigenvalues, are discussed. The results are the analytic part of a joint work with G. Cotti and B. Dubrovin. We were motivated by the problem of extending to coalescent structures the analytic theory of Frobenius manifolds, in view of the computation of the monodromy data of the quantum cohomology of Grassmannians [2], [3], [6]. Analytically, this problem translates to the problem of extending the isomonodromic deformation theory of Jimbo-Miwa-Ueno to certain non generic cases.

References

- [1] G. Cotti, B. Dubrovin, D. Guzzetti: Isomonodromy Deformations at an Ir-regular Singularity with Coalescing Eigenvalues. arXiv:1706.04808 (2017). To appear in Duke Math. J.
- [2] G. Cotti, B. Dubrovin, D. Guzzetti: Local Moduli of Semisimple Frobenius Coalescent Structures. arXiv:1712.08575 (2017).
- [3] G. Cotti, D. Guzzetti: Analytic geometry of semisimple coalescent Frobenius structures. Random Matrices Theory Appl. 6 (2017), no. 4, 1740004, 36 pp.
- [4] G. Cotti, D. Guzzetti: Results on the Extension of Isomonodromy Deformations to the case of a Resonant Irregular Singularity. Random Matrices Theory Appl (2018).
- [5] D. Guzzetti: Notes on non-generic Isomonodromy Deformations. SIGMA 14 (2018), 087, 34 pages.
- [6] G. Cotti, B. Dubrovin, D. Guzzetti. Helix Structures in Quantum Cohomology of Fano Varieties. arXiv:1811.09235 (2018).

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